

## SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: William Phillip Fletcher III Examiner #: 78517 Date: 02/13/03  
 Art Unit: 1762 Phone Number 308-7956 Serial Number: 09/996,108  
 Mail Box and Bldg/Room Location: CP3 10A15 (box) Results Format Preferred (circle): PAPER DISK E-MAIL  
CP3 10B 03/office

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Preparation of Lithographic Printing Plate by Computer-to-plate Ink Jet Method Utilizing Amidine-Containing Oleophilizing Compound  
 Inventors (please provide full names): \_\_\_\_\_

Locuffier, John; Van Damme, Marc; and Leenders, Luc (AGFA)

Earliest Priority Filing Date: 01/26/01

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

*Please search the attached compounds as oleophilizing compounds in ink jet lithographic printing plate mfg. process.*

*Thanks,  
 Bill Fletcher  
 [See attached]*

## STAFF USE ONLY

Searcher: Ed  
 Searcher Phone #: \_\_\_\_\_  
 Searcher Location: \_\_\_\_\_  
 Date Searcher Picked Up: \_\_\_\_\_  
 Date Completed: 2-13-03  
 Searcher Prep & Review Time: 10  
 Clerical Prep Time: \_\_\_\_\_  
 Online Time: 105

## Type of Search

NA Sequence (#) \_\_\_\_\_ STN: \$335.33  
 AA Sequence (#) \_\_\_\_\_  
 Structure (#) (8) Dialog  
Questel/Orbit  
 Bibliographic and Dr. Link  
 Litigation \_\_\_\_\_ Lexis/Nexis \_\_\_\_\_  
 Fulltext \_\_\_\_\_ Sequence Systems \_\_\_\_\_  
 Patent Family \_\_\_\_\_ WWW/Internet \_\_\_\_\_  
 Other \_\_\_\_\_ Other (specify) \_\_\_\_\_

=> file reg

FILE 'REGISTRY' ENTERED AT 18:32:34 ON 13 FEB 2003  
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=> d his

FILE 'HCAPLUS' ENTERED AT 16:16:53 ON 13 FEB 2003

L1 69 S LOCCUFIER ?/AU  
L2 55 S DAMME ?/AU  
L3 362 S LEENDERS ?/AU  
L4 0 S L1 AND L2 AND L3  
L5 1087 S VAN DAMME ?/AU  
L6 0 S L1 AND L3 AND L5  
L7 1 S L1 AND (L2 OR L5)  
L8 2 S L1 AND L3  
L9 5 S (L2 OR L5) AND L3  
L10 8 S L7 OR L8 OR L9  
SEL L10 1-8 RN

FILE 'REGISTRY' ENTERED AT 16:18:17 ON 13 FEB 2003

L11 31 S E1-E31  
L12 7 S L11 AND 1<N

FILE 'LREGISTRY' ENTERED AT 16:23:05 ON 13 FEB 2003

L13 STR

FILE 'REGISTRY' ENTERED AT 16:34:04 ON 13 FEB 2003

L14 SCR 1945  
L15 SCR 1424 OR 1406  
L16 50 S L13 AND L14 AND L15  
L17 SCR 2043 OR 1841 OR 1996 OR 2007 OR 2016 OR 2022 OR 2026  
L18 50 S L13 AND L14 AND L15 NOT L17

FILE 'LREGISTRY' ENTERED AT 16:44:36 ON 13 FEB 2003

L19 STR L13

FILE 'REGISTRY' ENTERED AT 16:50:22 ON 13 FEB 2003

L20 SCR 963 AND 1006  
L21 SCR 965 OR 1008  
L22 50 S L19 AND L14 AND L15 AND L20 AND L21  
L23 50 S L19 AND L14 AND L15 AND L20 AND L21 NOT L17  
L24 STR L19  
L25 50 S L24 AND L14 AND L15 AND L20 AND L21 NOT L17  
L26 50 S L24 AND L14 AND L15 AND L20 AND L21  
L27 56319 S L24 AND L14 AND L15 AND L20 AND L21 NOT L17 FUL  
SAV TEM L27 FLE108/A

FILE 'HCA' ENTERED AT 18:03:34 ON 13 FEB 2003

L28 21125 S L27

L29 82584 S LITHO? OR PHOTOLITHO? OR CHROMOLITHO? OR PHOTOCHROMOLIT  
 L30 15459 S PRINTPLAT? OR PRINT?(2A) (PLATE OR PLATES)  
 L31 14280 S INKJET? OR (INK? OR PRINT? OR RECORD?) (2A) (JET OR JETS  
 L32 147063 S OLEOPHIL? OR LIPOPHIL? OR HYDROPHOB?  
 L33 105 S L28 AND L29  
 L34 103 S L28 AND L30  
 L35 33 S L28 AND L31  
 L36 528 S L28 AND L32  
 L37 49 S L33 AND L34  
 L38 0 S L33 AND L35  
 L39 22 S L33 AND L36  
 L40 0 S L34 AND L35  
 L41 15 S L34 AND L36  
 L42 0 S L35 AND L36  
 L43 465 S L31 AND (L29 OR L30)  
 L44 0 S L43 AND L28  
 L45 22378 S (LITHO? OR PHOTOLITHO? OR CHROMOLITHO? OR PHOTOCHROMOLI  
 L46 7002 S (PRINTPLAT? OR PRINT?(2A) (PLATE OR PLATES))/TI  
 L47 51 S L33 AND L45  
 L48 39 S L34 AND L46

FILE 'REGISTRY' ENTERED AT 18:11:44 ON 13 FEB 2003

L49 37230 S L27 NOT 1<NRRS  
 L50 1108119 S NCNC2/ESS  
 L51 1195244 S NCNC3/ESS  
 L52 518049 S NCNC2/ES  
 L53 542581 S NCNC3/ES  
 L54 16333 S L49 AND (L52 OR L53)  
 E C21H30N2O3/MF  
 L55 513 S E3  
 L56 14 S L54 AND L55  
 L57 266837 S 46.195.39/RID  
 L58 7755 S L54 NOT L57  
 E C12H21N3O2/MF  
 L59 375 S E3  
 L60 25 S L58 AND L59  
 L61 197570 S 16.195.24/RID  
 L62 6662 S L58 NOT L61

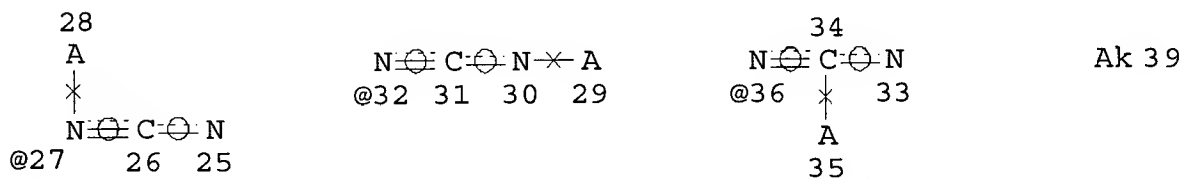
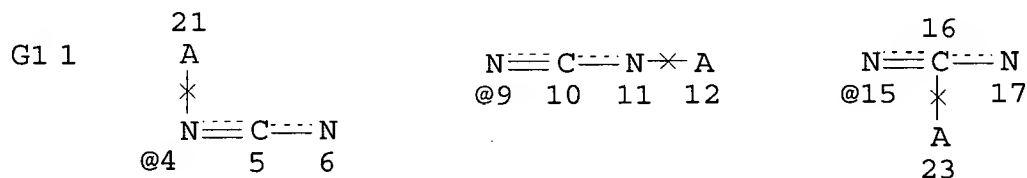
FILE 'HCA' ENTERED AT 18:23:09 ON 13 FEB 2003

L63 4601 S L62  
 L64 15 S L63 AND (L29 OR L30 OR L31)  
 L65 140 S L63 AND L32  
 L66 2 S L64 AND L65  
 L67 30 S L41 OR L64 OR L66  
 L68 28 S (L41 OR L64) NOT L66  
 L69 7 S L39 NOT (L66 OR L68)  
 L70 53 S (L35 OR L48) NOT (L66 OR L68 OR L69)  
 L71 29 S (L37 OR L47) NOT (L66 OR L68 OR L69 OR L70)  
 L72 29 S L33 NOT (L66 OR L68 OR L69 OR L70 OR L71)  
 L73 44 S L34 NOT (L66 OR L68 OR L69 OR L70 OR L71 OR L72)

FILE 'REGISTRY' ENTERED AT 18:32:34 ON 13 FEB 2003

=&gt; d l27 que stat

L14 SCR 1945  
 L15 SCR 1424 OR 1406  
 L17 SCR 2043 OR 1841 OR 1996 OR 2007 OR 2016 OR 2022 OR 2026 O  
 R 1976 OR 1918 OR 2040 OR 2127 OR 2049  
 L20 SCR 963 AND 1006  
 L21 SCR 965 OR 1008  
 L24 STR



VAR G1=4/9/15/27/32/36

NODE ATTRIBUTES:

NSPEC IS RC AT 12  
 NSPEC IS RC AT 21  
 NSPEC IS RC AT 23  
 NSPEC IS RC AT 28  
 NSPEC IS RC AT 29  
 NSPEC IS RC AT 35  
 CONNECT IS E1 RC AT 39  
 DEFAULT MLEVEL IS ATOM  
 GGCAT IS SAT AT 39  
 DEFAULT ECLEVEL IS LIMITED  
 ECOUNT IS M4 C AT 39

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 26

STEREO ATTRIBUTES: NONE

L27 56319 SEA FILE=REGISTRY SSS FUL L24 AND L14 AND L15 AND L20  
 AND L21 NOT L17

100.0% PROCESSED 110720 ITERATIONS  
 SEARCH TIME: 00.00.04

56319 ANSWERS

=> file hca

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=> d l66 1-2 cbib abs hitstr hitind

L66 ANSWER 1 OF 2 HCA COPYRIGHT 2003 ACS

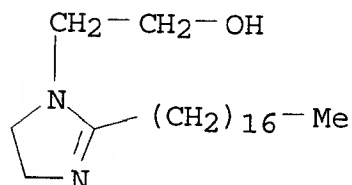
96:172073 A **lithographic** etch fix. Hornby, J. C.; Kemp, R. J.  
 (Kodak Ltd., UK). Research Disclosure, 214, 39-41 (English) 1982.  
 CODEN: RSDSBB. ISSN: 0374-4353.

AB **Lithog.** etch-fix compns., which are used to render photog.  
 images **oleophilic**, are composed of an acid, iodide ions,  
 .gtoreq.1 org. compd. contg. a **lipophilic** group, .gtoreq.1  
 compd. with an oxidn. potential more pos. than the potential of a  
 AgI/Ag electrode, and .gtoreq.1 heterocyclic onium salt. Thus, a  
 typical soln. contained EDTA Fe(III) Na salt 40, citric acid 80,  
 ethylquinolinium iodide 20, Armeen 12D 2 g, and water to 1000 mL.  
 The pH of the soln. was .apprx.2.

IT 95-19-2 36060-61-4  
 (lithog. etch-fix solns. contg., for rendering silver  
 images **oleophilic**)

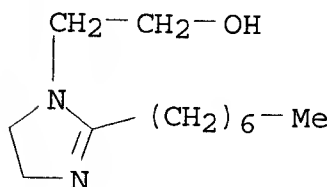
RN 95-19-2 HCA

CN 1H-Imidazole-1-ethanol, 2-heptadecyl-4,5-dihydro- (9CI) (CA INDEX  
 NAME)



RN 36060-61-4 HCA

CN 1H-Imidazole-1-ethanol, 2-heptyl-4,5-dihydro- (9CI) (CA INDEX NAME)



CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and  
 Other Reprographic Processes)

ST **oleophilization** silver image **lithog** plate; etch  
 fix soln **lithog oleophilization**

IT **Lithography**

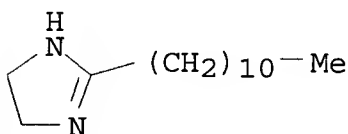
- (etch-fix solns. for **oleophilization** of silver images in)
- IT **Lithographic** plates  
(etch-fix solns. for **oleophilization** of silver images on)
- IT Surfactants  
Carboxylic acids, uses and miscellaneous  
Sulfonium compounds  
(**lithog.** etch-fix solns. contg., for rendering silver images **oleophilic**)
- IT Onium compounds  
(heterocyclic, **lithog.** etch-fix solns. contg., for rendering silver images **oleophilic**)
- IT 69-72-7D, iron complexes 77-92-9, uses and miscellaneous  
**95-19-2** 124-22-1 140-72-7 143-27-1 148-25-4D, iron complexes 149-46-2D, transition metal complexes 606-55-3  
634-35-5 1652-63-7 2876-13-3 3947-76-0 3947-77-1 4408-64-4  
7440-45-1D, 1,2-dihydroxybenzene-3,5-disulfonic acid complexes  
7681-11-0, uses and miscellaneous 7681-82-5, uses and miscellaneous 8051-40-9 14025-15-1 14048-77-2 15136-66-0  
15275-07-7 15708-41-5 15819-11-1 15844-52-7 16448-54-7  
26204-52-4 26635-92-7 26635-93-8 28724-32-5 **36060-61-4**  
37208-32-5 51741-76-5 51741-77-6 52279-49-9 67479-85-0  
71767-56-1 81332-39-0 81342-27-0 81343-82-0 81362-05-2  
81405-96-1 81406-08-8 81406-68-0 81406-69-1 81508-84-1  
(**lithog.** etch-fix solns. contg., for rendering silver images **oleophilic**)
- IT 7439-89-6D, 1,2-dihydroxybenzene-3,5-disulfonic acid complexes  
(**lithog.** etch-fix solns. contg., for reordering silver images **oleophilic**)

L66 ANSWER 2 OF 2 HCA COPYRIGHT 2003 ACS

84:24426 **Lithographic** plates with **oleophilic** silver images. Boston, David R. (Minnesota Mining and Mfg. Co., USA). Ger. Offen. DE 2500448 19750710, 23 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1975-2500448 19750106.

AB To render an Ag image transferred from a high-contrast Ag halide emulsion to a tough hydrophilic layer contg. SiO<sub>2</sub> and a metal ion redn. catalyst ink-receptive it is treated with an acid soln. contg. Fe(CN)<sub>6</sub><sup>3-</sup> and an org. cationic NH compd. forming an **oleophilic** complex with the oxidized Ag. Thus, a 100 .mu. polyester film with an 8 .mu. organophilic layer of 1 part vinyl acetate-vinyl chloride (Vinylite VAGH) resin with 3 parts TiO<sub>2</sub> was coated with an aq. mixt. of SiO<sub>2</sub>, glycerol, and Ag proteinate as image receptor layer, followed by 20 mg/dm<sup>2</sup> Ag as Ag(Cl,Br) 2:1 emulsion. After exposure and processing in a developer contg. Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> the emulsion layer was removed by water of 110.degree., leaving a pos. Ag image in the hydrophilic receptor layer. To render it ink-receptive it was immersed 25 sec in a soln. contg. per l. K<sub>3</sub>Fe(CN)<sub>6</sub> 33, NaCl 17.5, and 2-benzyl-2-imidazoline HCl 10 g. After washing 5 sec the plate yielded thousands of **lithog.** prints.

IT 10443-61-5  
 (oleophilization of silver images by solns. contg.  
 potassium ferricyanide and, for lithog. plates)  
 RN 10443-61-5 HCA  
 CN 1H-Imidazole, 4,5-dihydro-2-undecyl- (9CI) (CA INDEX NAME)

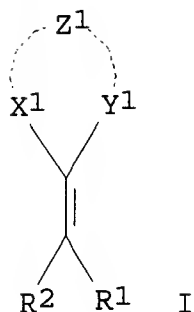


IC C07D; C07C; G03F  
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic Processes)  
 ST oleophilic silver lithog plate  
 IT Lithographic plates  
 (oleophilization of silver images for, with acid solns. contg. ferricyanide and cationic amino compds.)  
 IT 7440-22-4, uses and miscellaneous  
 (oleophilization of photog. images of, for lithog. plates)  
 IT 13746-66-2  
 (oleophilization of silver images by solns. contg. cationic amino compds. and, for lithog. plates)  
 IT 51-17-2 124-42-5 670-95-1 693-98-1 936-49-2  
 10443-61-5  
 (oleophilization of silver images by solns. contg. potassium ferricyanide and, for lithog. plates)  
 IT 7447-40-7, uses and miscellaneous 7647-01-0, uses and miscellaneous 7647-14-5, uses and miscellaneous  
 (oleophilization of silver images by solns. contg. potassium ferricyanide, cationic amino compds., and, for lithog. plates)  
 IT 59-97-2 108-47-4 110-86-1, uses and miscellaneous 113-00-8  
 143-37-3 615-15-6 699-21-8 1202-34-2 4238-71-5 5805-76-5  
 6882-47-9 15450-05-2  
 (oleophilization of silver images with solns. contg. potassium ferricyanide and, for lithog. plates)

=> d 168 1-28 cbib abs hitstr hitind

L68 ANSWER 1 OF 28 HCA COPYRIGHT 2003 ACS  
 137:224055 High contrast heat developable photographic film showing reduced fog, high image density, and high sensitivity. Takasaki, Suguru; Watanabe, Katsuyuki; Ezoe, Toshihide; Taniguchi, Masahiko; Yamada, Kozaburo (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002250985 A2 20020906, 36 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-46811 20010222.

GI



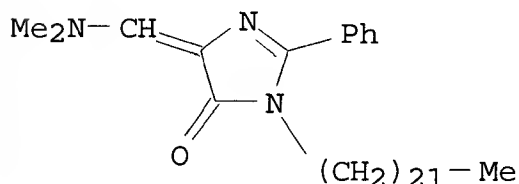
AB The title heat developable photog. film contains a nucleating agent represented by I (R1, R2 = H, monovalent substituent; X1 = O, S, N; Y1 = -C(:O)-, -C(:S)-, -SO-, -SO2-, -C(:NR3)-, -(R4)C:N-; R3, R4 = H, substituent; Z1 = nonmetal atoms for forming 5- to 7-membered ring) having a mol. wt. of .gtoreq.480. The photog. film is suitable for offset printing platemaking by a laser imager.

IT 455929-13-2P

(prepn. of nucleating agent for high contrast heat developable photog. film to improve reduced fog, high image d., and high sensitivity)

RN 455929-13-2 HCA

CN 4H-Imidazol-4-one, 5-[(dimethylamino)methylene]-3-docosyl-3,5-dihydro-2-phenyl- (9CI) (CA INDEX NAME)



IC ICM G03C001-498

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT **Lithographic** films (photographic)

(high contrast heat developable photog. film contg. specified nucleating agent to improve reduced fog, high image d., and high sensitivity)

IT 81855-51-8P 455929-08-5P 455929-11-0P 455929-13-2P

(prepn. of nucleating agent for high contrast heat developable photog. film to improve reduced fog, high image d., and high sensitivity)

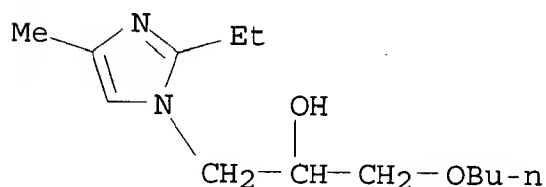
L68 ANSWER 2 OF 28 HCA COPYRIGHT 2003 ACS

136:248734 UV- and thermally-curable epoxy-based adhesive formulation. Patil, Girish Shivaji (Lexmark International, Inc., USA). U.S. US 6358354 B1 20020319, 8 pp. (English). CODEN: USXXAM. APPLICATION:



US 2000-610083 20000705.

- AB The invention provides an adhesive formulation (A) for tacking and holding a nozzle plate in alignment on a semiconductor chip for an **ink jet pen** of an **ink jet printer**, wherein A comprises a multifunctional epoxy resin, e.g., a polyglycidyl ether of phenol-formaldehyde novolak resin, a difunctional epoxy material, e.g., a bisphenol A-epichlorohydrin resin, a fumed silica viscosity control agent, an imidazole-based thermal initiator and a mixed aryl sulfonium salt photoinitiator.
- IT **403982-89-8D**, epoxy adduct  
(curing agent; UV- and thermally-curable epoxy-based adhesive formulation)
- RN 403982-89-8 HCA
- CN 1H-Imidazole-1-ethanol, .alpha.-(butoxymethyl)-2-ethyl-4-methyl-(9CI) (CA INDEX NAME)



- IC ICM C09J163-02  
ICS C09J163-04; C09J005-00; B41J002-135
- NCL 156273300
- CC 38-3 (Plastics Fabrication and Uses)  
Section cross-reference(s): 74
- ST phenol formaldehyde polyglycidyl ether epoxy novolak adhesive formulation; **ink jet pen** semiconductor chip nozzle plate adhesive; imidazole thermal initiator UV thermally curable adhesive
- IT Integrated circuits  
(bonding with **ink-jet pen** using UV- and thermally-curable epoxy-based adhesive)
- IT Nozzles  
(**ink-jet printing**; bonding to a semiconductor chip using UV- and thermally-curable epoxy-based adhesive)
- IT **Ink-jet printer heads**  
(nozzles; bonding to a semiconductor chip using UV- and thermally-curable epoxy-based adhesive)
- IT 106-91-2D, Glycidyl methacrylate, epoxy adduct 122-60-1D, Phenyl glycidyl ether, epoxy adduct 583-39-1D, 2-Mercaptobenzimidazole, epoxy adduct 670-96-2D, 2-Phenylimidazole, epoxy adduct 693-98-1D, 2-Methylimidazole, epoxy adduct 931-36-2D, 2-Ethyl-4-methylimidazole, epoxy adduct 1072-62-4D, 2-Ethylimidazole, epoxy adduct 2426-08-6D, Butyl glycidyl ether, epoxy adduct 19179-98-7D, 1-(2-Hydroxy-3-phenoxypropyl)-2-1H-methylimidazole, epoxy adduct 55773-65-4D, 1-(2-Hydroxy-3-phenoxypropyl)-2-ethyl-4-methylimidazole, epoxy adduct

91454-82-9D, 1-(2-Hydroxy-3-butoxypropyl)-2-1H-methylimidazole, epoxy adduct **403982-89-8D**, epoxy adduct (curing agent; UV- and thermally-curable epoxy-based adhesive formulation)

L68 ANSWER 3 OF 28 HCA COPYRIGHT 2003 ACS

135:358675 Rheology-controlled epoxy-based compositions. Kozak, Kyra M. (Loctite Corporation, USA). PCT Int. Appl. WO 2001083607 A1 20011108, 27 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2001-US11727 20010423. PRIORITY: US 2000-PV198744 20000421.

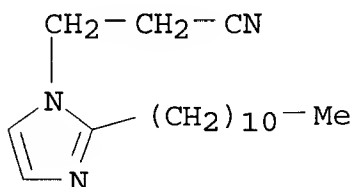
AB A rheol. controlled epoxy compn. comprises: (a) an epoxy resin component; (b) a rheol. control agent selected from the group consisting of epoxysilanes, aminosilanes, trialkoxysilyl isocyanurate derivs., and combinations thereof; (c) a curing agent component comprising a member selected from the group consisting of amine compds., amide compds., imidazole compds., and combinations thereof; and (d) optionally, an inorg. filler component. The compns. are useful in applications selected from bonding a silicon substrate to a flex circuit, a flex circuit to a pen body, sealing underfilling between a semiconductor chip and a circuit board to which the semiconductor chip is elec. connected, and sealing underfilling between a semiconductor device including a semiconductor chip mounted on a carrier substrate and a circuit board to which the semiconductor device is elec. connected. The compns. are particularly well suited for use in coating applications such as in the assembly of **ink jet printheads** for the printing industry, and in the microelectronics industry such as in the assembly of semiconductor devices.

IT **23996-16-9**, 1-Cyanoethyl-2-undecylimidazole  
**220184-86-1**

(curing agent; rheol.-controlled epoxy-based compns.)

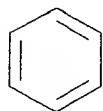
RN **23996-16-9** HCA

CN 1H-Imidazole-1-propanenitrile, 2-undecyl- (9CI) (CA INDEX NAME)

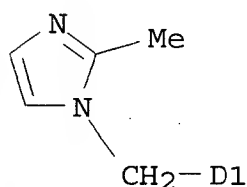


RN **220184-86-1** HCA

CN 1H-Imidazole, 1-[(dodecylphenyl)methyl]-2-methyl- (9CI) (CA INDEX NAME)



Me- (CH<sub>2</sub>)<sub>11</sub>-D1



IC ICM C08K005-54  
ICS H01L051-40

CC 37-6 (Plastics Manufacture and Processing)  
Section cross-reference(s): 76

ST rheol controlled epoxy compn sealant semiconductor device;  
**ink jet printhead** rheol controlled epoxy compn

IT **Ink-jet printer heads**  
Microelectronic devices  
Sealing compositions  
Semiconductor devices  
(rheol.-controlled epoxy-based compns.)

IT 104-78-9 111-40-0, Diethylenetriamine 112-24-3,  
Triethylenetetramine 288-32-4, Imidazole, uses 461-58-5,  
Dicyandiamide 484-47-9, 2,4,5-Triphenylimidazole 693-98-1,  
2-Methyl imidazole 930-62-1, 2,4-Dimethylimidazole 931-36-2,  
2-Ethyl-4-methylimidazole 1477-55-0, 1,3-Benzenedimethanamine  
1728-97-8, 2-(p-Dimethylaminophenyl)-4,5-diphenylimidazole  
1965-19-1 2818-82-8, 2-Methyl-4,5-diphenylimidazole 2851-95-8,  
1-Vinyl-2-methylimidazole 2855-13-2, Isophoronediamine 4051-59-6  
13682-34-3 13750-62-4, 1-Benzyl-2-methylimidazole 14691-35-1,  
2-(2-Hydroxyphenyl)-4,5-diphenylimidazole 16731-68-3,  
2-Undecylimidazole 23328-87-2, 2-Heptadecylimidazole 23996-12-5,  
1-Cyanoethyl-2-phenylimidazole **23996-16-9**,  
1-Cyanoethyl-2-undecylimidazole 23996-25-0, 1-Cyanoethyl-2-ethyl-4-  
methylimidazole 23996-55-6, 1-Cyanoethyl-2-methylimidazole  
27137-44-6 33214-18-5, 1-Propyl-2-methylimidazole 38668-46-1  
41380-60-3, Butylimidazole 83689-34-3 95815-86-4 156706-12-6,  
Menthenediamine 220170-99-0 220171-00-6 220184-83-8  
220184-84-9, 2-Undecenylimidazole 220184-85-0 **220184-86-1**  
(curing agent; rheol.-controlled epoxy-based compns.)

L68 ANSWER 4 OF 28 HCA COPYRIGHT 2003 ACS

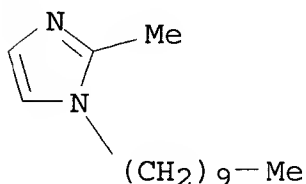
133:90837 Water-thinned **jet ink** compositions for printing high quality images on various papers. Malhotra, Shadi L.; Mayo, James D.; Breton, Marcel P. (Xerox Corp., USA). U.S. US 6086661 A 20000711, 18 pp. (English). CODEN: USXXAM. APPLICATION: US 1999-300210 19990427.

AB An aq. ink compn. is comprised of (1) a dye fixing quaternary compd. selected from (a) imidazolinium quaternary salts, (b) phosphonium quaternary salts, and (c) an ammonium quaternary salt, (2) a liq. ink vehicle, (3) a paper-curl reducing compd., (4) a lightfastness component, (5) a lightfastness antioxidant, (6) a substantially water-sol. org. salt or a substantially water-sol. inorg. salt, (7) a biocide, and (8) a colorant.

IT **42032-30-4**, 1-Decyl-2-methyl-imidazole  
(vehicle; fast-drying ink compns. for printing high quality images on various papers)

RN 42032-30-4 HCA

CN 1H-Imidazole, 1-decyl-2-methyl- (9CI) (CA INDEX NAME)



IC ICM C09D011-00

NCL 106031430

CC 42-12 (Coatings, Inks, and Related Products)

ST acoustic **jet printing aq ink**; color **printing jet ink**; dye fixative **jet ink**; quaternary salt fixative **jet ink**; waterfast lightfast **jet printing ink**

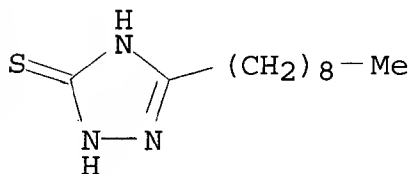
IT **Inks**

(**jet-printing**, water-thinned; fast-drying ink compns. for printing high quality images on various papers)

IT 105-08-8, 1,4-Cyclohexanedimethanol 107-21-1, Ethylene glycol, uses 108-32-7, Propylene carbonate 111-46-6, Di(ethylene glycol), uses 111-48-8, 2,2'-Thiodiethanol 112-34-5, Di(ethylene glycol) butyl ether 112-73-2, Diethylene glycol dibutyl ether 126-33-0, Tetramethylene sulfone 492-97-7, 2,2'-Bithiophene 616-45-5, 2-Pyrrolidinone 1125-99-1, 1-Pyrrolidino-1-cyclohexene 2580-77-0, 2,2'-Sulfonyldiethanol 2687-94-7, 1-Octyl-2-pyrrolidinone 6837-24-7, 1-Cyclohexyl-2-pyrrolidinone **42032-30-4**, 1-Decyl-2-methyl-imidazole (vehicle; fast-drying ink compns. for printing high quality images on various papers)

L68 ANSWER 5 OF 28 HCA COPYRIGHT 2003 ACS

- 131:108940 Platemaking of aluminum lithographic **printing plates** using silver salt diffusion-transfer method. Kondo, Toshio; Fujioka, Hajime; Kawamada, Yukinao; Ohashi, Yoshito (Mitsubishi Paper Mills, Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 11180064 A2 19990706 Heisei, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-348820 19971218.
- AB The **printing plates** having Al supports, phys. nuclei, and Ag halide emulsion layers are treated with solns. contg. water-sol. iodides after development. High ink-receiving property and good printability are obtained by the method.
- IT **7271-50-3**  
(**lipophilic** agents; treatment of water-sol. iodides in platemaking of aluminum lithog. **printing plates**)
- RN 7271-50-3 HCA
- CN 3H-1,2,4-Triazole-3-thione, 1,2-dihydro-5-nonyl- (9CI) (CA INDEX NAME)



- IC ICM B41N003-08  
ICS B41C001-10; G03F007-07; G03F007-32
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- ST aluminum lithog **printing plate** iodide treatment; mercapto **lipophilic** agent lithog **printing plate**; thione **lipophilic** agent lithog **printing plate**
- IT Lithographic plates  
Lithography  
(treatment of water-sol. iodides in platemaking of aluminum lithog. **printing plates**)
- IT **7271-50-3** 66473-10-7, 2-Mercapto-5-heptyloxadiazole  
68043-64-1, 3-Pentylbenzoxazoline-2-thione  
(**lipophilic** agents; treatment of water-sol. iodides in platemaking of aluminum lithog. **printing plates**)
- IT 7681-11-0, Potassium iodide, uses  
(treatment of water-sol. iodides in platemaking of aluminum lithog. **printing plates**)
- L68 ANSWER 6 OF 28 HCA COPYRIGHT 2003 ACS
- 128:82101 Manufacture of lithographic **printing plate** using silver halide photographic material. Kiyoyama, Hideo; Iwata, Tamotsu (Mitsubishi Paper Mills, Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 09304934 A2 19971128 Heisei, 13 pp. (Japanese). CODEN:

JKXXAF. APPLICATION: JP 1996-118550 19960514.

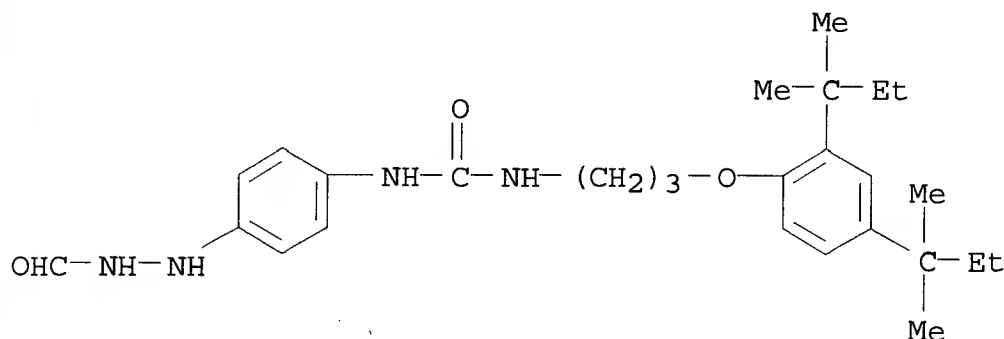
AB A photog. material contg. a Ag halide emulsion layer is imagewise exposed and developed in the presence of a hydrazine deriv. followed by selectively **lipophilizing** the undeveloped Ag halide image or developed metallic Ag image area to be ink-receptive to give a lithog. **printing plate**. The obtained **printing plate** shows improved **printing** durability.

IT 105754-54-9

(manuf. of lithog. **printing plate** by developing silver halide photog. material in presence of hydrazine)

RN 105754-54-9 HCA

CN Urea, N-[3-[2,4-bis(1,1-dimethylpropyl)phenoxy]propyl]-N'-[4-(2-formylhydrazino)phenyl]- (9CI) (CA INDEX NAME)



IC ICM G03F007-07

ICS G03C008-06; G03F007-00; G03F007-30

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT Lithographic plates

Photographic development

(manuf. of lithog. **printing plate** by developing silver halide photog. material in presence of hydrazine)

IT 86551-61-3 105754-54-9 136482-47-8 145263-60-1

174188-16-0 200808-02-2

(manuf. of lithog. **printing plate** by

developing silver halide photog. material in presence of hydrazine)

L68 ANSWER 7 OF 28 HCA COPYRIGHT 2003 ACS

127:313146 Treatment solution for lithographic **printing**

**plate**. Kurokawa, Hiroyuki; Araki, Yutaka; Kondo, Toshiro

(Mitsubishi Paper Mills, Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 09240163 A2 19970916 Heisei, 9 pp. (Japanese). CODEN: JKXXAF.

APPLICATION: JP 1996-50301 19960307.

AB In the title treatment soln. including neutralizing or etching soln., a mercapto or thio group-contg. water-insol. compd. and a

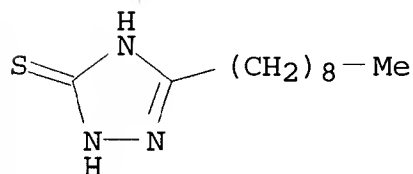
bisulfite are contained. The treatment soln. may contain phosphoric acid or a phosphate, or some specified polymers or compds. The invention can assure the **oleophilic** stability of the mercapto or thio group-contg. water-insol. compd. for a long time to prevent the ink-receiving ability of the plate from lowering.

IT 7271-50-3

(contained in treatment soln. for lithog. **printing plate**)

RN 7271-50-3 HCA

CN 3H-1,2,4-Triazole-3-thione, 1,2-dihydro-5-nonyl- (9CI) (CA INDEX NAME)



IC ICM B41N003-08

ICS G03F007-00; G03F007-32

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST lithog **printing plate** treatment soln; mercapto thio contg compd treatment soln

IT 149-30-4, 2-Mercapto-benzothiazole 505-73-7 7271-50-3

7558-80-7, Sodium primary phosphate 7631-90-5, Sodium bisulfite

9011-13-6D, Maleic anhydride-styrene copolymer, sulfone compd.

29321-75-3 30886-16-9 66473-10-7 68043-64-1 197452-63-4

(contained in treatment soln. for lithog. **printing plate**)

L68 ANSWER 8 OF 28 HCA COPYRIGHT 2003 ACS

127:313145 Treatment solution for lithographic **printing**

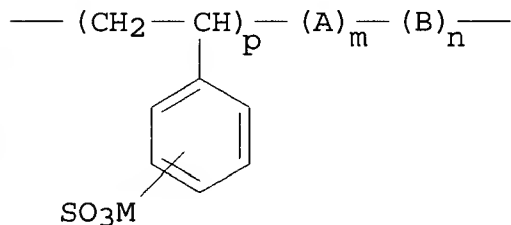
**plate**. Kurokawa, Hiroyuki; Kondo, Toshiro (Mitsubishi Paper

Mills, Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 09240162 A2 19970916

Heisei, 9 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP

1996-50300 19960307.

GI



I

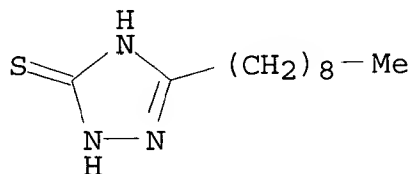
AB In the title treatment soln. including neutralizing or etching soln., a mercapto or thio group-contg. water-insol. compd. and a compd. I (A = carboxy-contg. vinyl monomer; B = ethylenic unsatd. monomer; M = cation; p = 30-90 mol%; m = 10-50 mol%; n = 0-50 mol%) are contained. The invention can assure the **oleophilic** stability of the mercapto or thio group-contg. water-insol. compd. for a long time to prevent the ink-receiving ability of the plate from lowering.

IT 7271-50-3

(contained in treatment soln. for lithog. **printing plate**)

RN 7271-50-3 HCA

CN 3H-1,2,4-Triazole-3-thione, 1,2-dihydro-5-nonyl- (9CI) (CA INDEX NAME)



IC ICM B41N003-08

ICS G03F007-00; G03F007-32

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST lithog **printing plate** treatment soln; mercapto thio contg compd treatment soln; carboxy contg polymer treatment soln

IT 1155-51-7 7271-50-3 9011-13-6 9011-13-6D, Maleic anhydride-styrene copolymer, sulfone compd. 25549-84-2  
29321-75-3 66473-10-7 68043-64-1 197392-28-2  
(contained in treatment soln. for lithog. **printing plate**)

L68 ANSWER 9 OF 28 HCA COPYRIGHT 2003 ACS

126:24866 Desensitizing solution for offset **printing plate**. Itakura, Ryosuke; Kasai, Seishi; Sera, Hidefumi; Kato, Eiichi (Fuji Photo Film Co., Ltd., Japan). U.S. US 5565290 A 19961015, 35 pp. (English). CODEN: USXXAM. APPLICATION: US 1992-920862 19920728. PRIORITY: JP 1991-190081 19910730; JP 1991-269609 19911017; JP 1991-269917 19911018; JP 1991-269918 19911018; JP 1991-320488 19911204.

AB An amine compd.-contg., but cyanogen-free, desensitizing soln. for an offset **printing plate** prepd. from an electrophotog. material, characterized by contg. phytic acid and/or a metal and/or ammonium salts of phytic acid and at least one imide compd. contg. 1-6 amino groups of formula -NR<sub>1</sub>R<sub>2</sub> and 1-6 imide bonds of the formula -CON(R<sub>3</sub>)CO- (R<sub>1</sub>, R<sub>2</sub> = H or an org. group or R<sub>1</sub> and R<sub>2</sub> together may form a cyclic structure; R<sub>3</sub> = H, halogen, cyano, nitro, or an org. group).

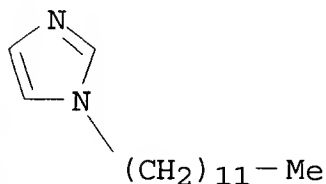


IT 4303-67-7 5709-34-2

(offset **printing plate** prepn. by  
electrophotog. using desensitizing solns. contg. phytic acid  
deriv. and)

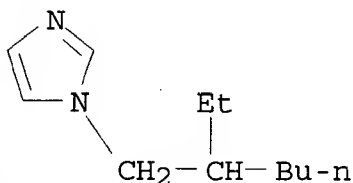
RN 4303-67-7 HCA

CN 1H-Imidazole, 1-dodecyl- (9CI) (CA INDEX NAME)



RN 5709-34-2 HCA

CN 1H-Imidazole, 1-(2-ethylhexyl)- (9CI) (CA INDEX NAME)



IC ICM G03G009-00

NCL 430104000

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and  
Other Reprographic Processes)ST electrophotog **lithog** plate desensitizer phytic acid; imide  
desensitizer electrophotog **lithog** plateIT Electrophotographic photoconductors (photoreceptors)  
(desensitizing solns. contg. phytic acid and imides for offset  
**printing plates** prepd. from)IT **Lithographic** plates  
(offset; desensitizing solns. contg. phytic acid and imides for  
electrophotog. produced)IT 33705-24-7  
(offset **printing plate** prepn. by  
electrophotog. using desensitizing solns. contg. imides and)

IT	1462-54-0	1541-67-9	2582-08-3	4088-37-3	4271-27-6
	<b>4303-67-7</b>	4376-87-8	<b>5709-34-2</b>	6292-07-5	
	7335-01-5	7706-46-9	16613-87-9	18707-40-9	19734-51-1
	23160-46-5	26627-76-9	28056-87-3	31866-75-8	33529-01-0
	39198-80-6	41331-11-7	41607-08-3	41607-12-9	54717-03-2
	57967-43-8	59629-72-0	60951-10-2	63777-50-4	76866-74-5
	77253-50-0	86157-23-5	101816-76-6	118353-14-3	118353-16-5
	123215-49-6	151536-83-3	155204-20-9	160011-02-9	172886-69-0
	184244-36-8	184244-37-9	184244-38-0	184244-39-1	184244-40-4
	184244-41-5	184244-42-6	184244-43-7	184244-44-8	184244-45-9
	184244-46-0	184244-47-1	184244-48-2	184244-49-3	184244-50-6

184244-51-7	184244-52-8	184244-53-9	184244-54-0	184244-55-1
184244-56-2	184244-57-3	184244-58-4	184244-59-5	184244-62-0
184244-64-2	184244-70-0	184244-73-3	184244-76-6	184244-79-9
184244-82-4	184244-85-7	184244-86-8	184244-87-9	184244-88-0
184244-89-1	184244-90-4	184244-91-5	184244-92-6	184244-93-7
184244-94-8	184244-95-9	184244-96-0	184244-97-1	184244-98-2
184244-99-3	184245-00-9	184245-01-0	184245-02-1	184245-03-2
184245-04-3	184245-05-4	184245-06-5	184245-07-6	184245-09-8
184245-10-1	184245-12-3	184245-13-4	184245-14-5	184245-15-6
184245-16-7	184245-17-8	184245-18-9	184245-19-0	184245-20-3
184245-21-4	184245-22-5	184245-23-6	184245-24-7	184245-25-8
184245-26-9	184245-27-0	184245-28-1	184245-29-2	184245-30-5
184245-31-6	184245-32-7	184245-33-8	184245-34-9	184245-35-0
184245-36-1	184245-37-2	184245-38-3		

(offset **printing plate** prepn. by  
electrophotog. using desensitizing solns. contg. phytic acid  
deriv. and)

L68 ANSWER 10 OF 28 HCA COPYRIGHT 2003 ACS

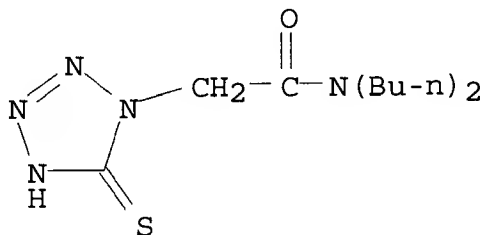
126:13085 A kit for preparing a processing liquid to be used for making a lithographic **printing plate** according to the silver salt diffusion-transfer process. Deprez, Lode; Vaes, Jos (Agfa-Gevaert Naamloze Vennootschap, Belg.). Eur. Pat. Appl. EP 736807 A1 19961009, 10 pp. DESIGNATED STATES: R: BE, DE, FR, GB, NL. (English). CODEN: EPXXDW. APPLICATION: EP 1995-200691 19950321.

AB A kit for prepg. a processing liq. for use in the prepn. of a lithog. **printing plate** according to the silver salt diffusion-transfer process comprises all necessary active compds. for prepg. the processing liq., the active compds. including a **hydrophobizing agent**, the **hydrophobizing agent** being provided in a concd. dissolved liq. state.

IT **168612-06-4**  
(lithog. plate manuf. by silver salt diffusion-transfer process using processing kits contg.)

RN 168612-06-4 HCA

CN 1H-Tetrazole-1-acetamide, N,N-dibutyl-2,5-dihydro-5-thioxo- (9CI)  
(CA INDEX NAME)



IC ICM G03F007-07

ICS G03C008-36; G03C005-26

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

- ST lithog plate processing soln kit; **hydrophobizing** agent  
process soln lithog plate
- IT Photographic processing  
(diffusion-transfer; using kits contg. concd.  
**hydrophobizing** agent solns. for lithog. plate manuf.)
- IT Lithographic plates  
(kits contg. concd. **hydrophobizing** agent solns. for  
prepg. processing solns. for silver salt diffusion-transfer  
photog. films for manuf. of)
- IT 56-81-5, Glycerin, uses 66473-10-7 **168612-06-4**  
171171-76-9  
(lithog. plate manuf. by silver salt diffusion-transfer process  
using processing kits contg.)

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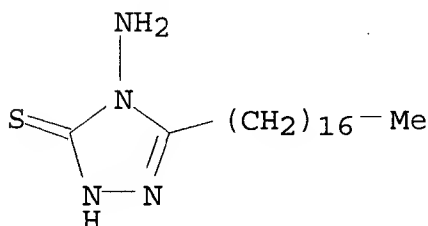
125:127821 Treating solution for lithographic **printing**  
**plates**. Kurokawa, Hiroyuki; Ibaraki, Kazuhiko; Urasaki,  
Jun; Yoshida, Akio (Mitsubishi Paper Mills Ltd., Japan). U.S. US  
5525455 A 19960611, 5 pp., Cont.-in-part of U.S. Ser. No. 203,364,  
abandoned. (English). CODEN: USXXAM. APPLICATION: US 1995-379251  
19950127. PRIORITY: JP 1993-205407 19930819; US 1994-203364  
19940301; JP 1994-36770 19940308.

AB A treating soln. for lithog. **printing plates**  
having ink-receptive silver images contains at least one  
alkanolamine and a compd. having a mercapto group or a thione group  
and an **oleophilic** group and being free from sulfo and  
carboxyl groups. Preferably, the soln. addnl. contains an amino  
acid and hydrophilic colloid particles which are inorg. fine  
particles having an av. particle size of 0.1 .mu.m or less.

IT **23455-87-0**, 3-Mercapto-4-amino-5-heptadecyl-1,2,4-triazole  
(silver image-contg. lithog. plate treating solns. contg.  
alkanolamines, amino acids and)

RN 23455-87-0 HCA

CN 3H-1,2,4-Triazole-3-thione, 4-amino-5-heptadecyl-2,4-dihydro- (9CI)  
(CA INDEX NAME)



IC ICM G03F007-07  
ICS G03C008-00

NCL 430204000

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and  
Other Reprographic Processes)

IT 6857-34-7, 2-Mercapto-4-phenylimidazole **23455-87-0**,  
3-Mercapto-4-amino-5-heptadecyl-1,2,4-triazole 66473-10-7,

2-Mercapto-5-heptyloxadiazole 157366-94-4, 3-Dodecylbenzothiazoline-2-thione  
(silver image-contg. lithog. plate treating solns. contg. alkanolamines, amino acids and)

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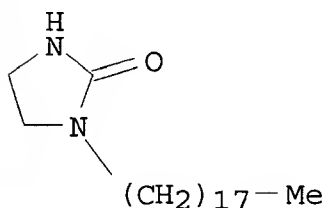
125:89083 **Ink-jet printing** fabrics with improved brightness, reduced bleeding and high color depth and prints therefrom. Aoki, Makoto (Canon K. K., Japan). Eur. Pat. Appl. EP 709519 A1 19960501, 18 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE. (English). CODEN: EPXXDW. APPLICATION: EP 1995-116762 19951024. PRIORITY: JP 1994-260059 19941025; JP 1995-271352 19951019.

AB In the title process, fabrics are first treated with water repellents (e.g., F-contg. compds., paraffin compds., pyridinium salts, N-methylolalkylamides, alkylethyleneureas, oxazoline derivs., silicones, triazine compds., or polyamide amines) to form fabrics with water repellent content 0.1-10% and water absorption time .gtoreq.3 s as detd. by the dropping method of JIS L-1095 and printed by an **ink-jet printing** method to give fabrics exhibiting max. color d. at shot-in-ink amt. 8-35 mg/mm<sup>2</sup>. A cotton satin was padded with an aq. soln. contg. 3% Paragium SS (paraffinic water repellent) to pickup 70% and dried 2 min at 120.degree. to give a fabric with water absorption time 10 s. The fabric was printed with an ink contg. C.I. Reactive Yellow 95, an ink contg. C.I. Reactive Red 226, an ink contg. C.I. Reactive Blue 15, and an ink contg. C.I. Reactive Black 39 using an **ink-jet printer** and heat treated 8 min at 100.degree. under steam to give a print with bleeding resistance rating (A best, C poor) A and max. color d. (K/S value) .gtoreq.15 and .gtoreq.15 at shot-in-ink amt. 8 and 17 mg/mm<sup>2</sup>, resp.

IT 4991-32-6, Paragium RC  
(water repellent finish; for **ink-jet printing** fabrics with improved brightness, reduced bleeding and high color depth)

RN 4991-32-6 HCA

CN 2-Imidazolidinone, 1-octadecyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



IC ICM D06P005-00

ICS D06P001-00

CC 40-6 (Textiles and Fibers)

ST textile **ink jet printing** color depth;  
cotton textile **ink jet printing**;

- polyester fiber **ink jet printing**;  
 nylon fiber **ink jet printing**; bleeding  
 resistance textile **ink jet printing**;  
 paraffin finish textile print color yield; water repellent textile  
 print color yield
- IT Water-resistant materials  
 (finish; for **ink-jet printing**  
 fabrics with improved brightness, reduced bleeding and high color  
 depth)
- IT Polyamide fibers, uses  
 Polyester fibers, uses  
 (**ink-jet printing** fabrics with  
 improved brightness, reduced bleeding and high color depth)
- IT Alkanes, uses  
 Siloxanes and Silicones, uses  
 (water repellent finish; for **ink-jet**  
**printing** fabrics with improved brightness, reduced  
 bleeding and high color depth)
- IT Hydrocarbons, uses  
 (fluoro, water repellent finish; for **ink-jet**  
**printing** fabrics with improved brightness, reduced  
 bleeding and high color depth)
- IT Textile **printing**  
 (**ink-jet**, with improved brightness, reduced  
 bleeding and high color depth)
- IT Polyamines  
 (polyamide-, water repellent finish; for **ink-**  
**jet printing** fabrics with improved brightness,  
 reduced bleeding and high color depth)
- IT Polyamides, uses  
 (polyamine-, water repellent finish; for **ink-**  
**jet printing** fabrics with improved brightness,  
 reduced bleeding and high color depth)
- IT 4991-32-6, Paragium RC 174794-76-4, Zebran F 1  
 174794-86-6, Paragium SS 179046-32-3, Zebran R 260  
 (water repellent finish; for **ink-jet**  
**printing** fabrics with improved brightness, reduced  
 bleeding and high color depth)

L68 ANSWER 13 OF 28 HCA COPYRIGHT 2003 ACS

125:45172 Method for obtaining **printing plate**  
 according to silver salt diffusion-transfer process. Deprez, Lode;  
 Monbaliu, Marcel; Dewanckele, Jean-Marie (Agfa-Gevaert Naamloze  
 Vennootschap, Belg.). Eur. Pat. Appl. EP 709739 A2 19960501, 17 pp.  
 DESIGNATED STATES: R: BE, DE, FR, GB, NL. (English). CODEN:  
 EPXXDW. APPLICATION: EP 1994-203061 19941024.

AB The present invention provides a method for making a lithog.  
**printing plate** according to the silver salt  
 diffusion-transfer process using a photog. material comprising on a  
 support a silver halide emulsion layer and a layer contg. phys.  
 development nuclei comprising the steps of imagewise exposing the  
 photog. material, developing by guiding the exposed photog. material

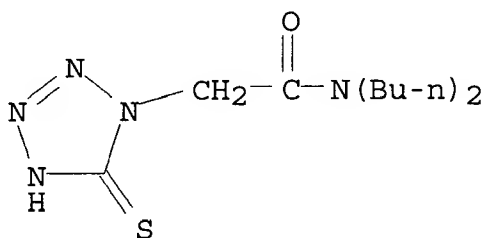
through an alk. processing liq. comprising a **hydrophobizing** agent for 15 s or less and then through a stabilizing liq., characterized in that the stabilizing liq. comprises a compd. having a mercapto group having a pKa of 4.5 or less.

IT 168612-06-4

(lithog. plate prepn. by silver salt diffusion-transfer photog. process using stabilizing solns. contg.)

RN 168612-06-4 HCA

CN 1H-Tetrazole-1-acetamide, N,N-dibutyl-2,5-dihydro-5-thioxo- (9CI)  
(CA INDEX NAME)



IC ICM G03F007-07

ICS B41N003-08

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 86-93-1 70253-99-5 72352-83-1 168612-06-4

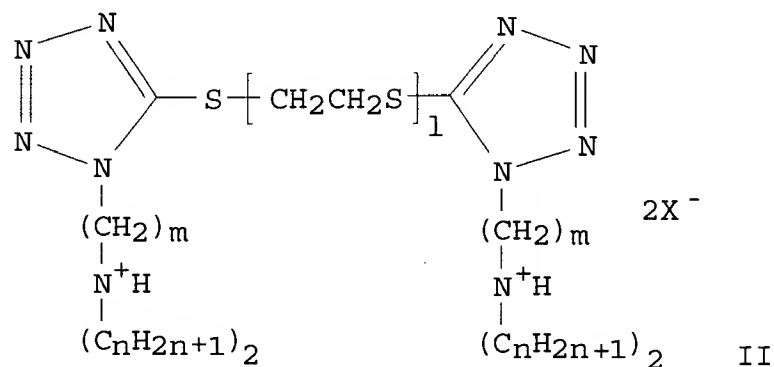
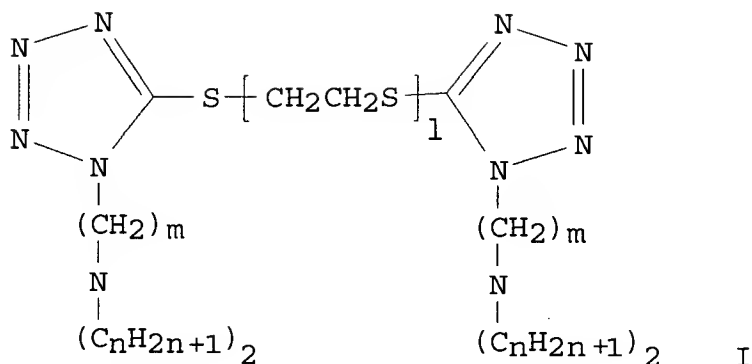
(lithog. plate prepn. by silver salt diffusion-transfer photog. process using stabilizing solns. contg.)

L68 ANSWER 14 OF 28 HCA COPYRIGHT 2003 ACS

122:92906 Treating agent for silver image offset **printing**

**plate** containing **oleophilization** agent. Takada, Masakazu; Hashimoto, Takimi; Miura, Taketoshi (Mitsubishi Paper Mills Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 06219075 A2 19940809 Heisei, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1993-11029 19930126.

GI

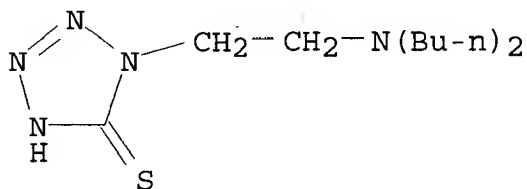


AB The treating agent for Ag image offset **printing plates** contains bis(tetrazolylthio)ethane deriv. I or II ( $l = 1, 2$ ;  $m = 2-4$ ;  $n = 4-6$ ;  $X = \text{halo}$ ). The ink-receptivity of **printing plates** were improved.

IT **158520-74-2**  
(reaction with bromochloroethane; treating agent for silver image offset **printing plate** contg. tetrazolylthioethane deriv.)

RN 158520-74-2 HCA

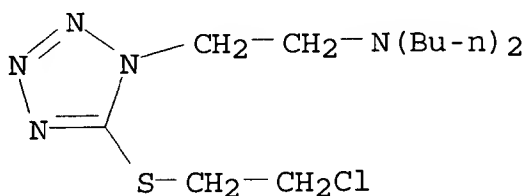
CN 5H-Tetrazole-5-thione, 1-[2-(dibutylamino)ethyl]-1,2-dihydro- (9CI)  
(CA INDEX NAME)



IT **159892-71-4P**  
(reaction with mercaptotetrazole???: treating agent for silver image offset **printing plate** contg. tetrazolylthioethane deriv.)

RN 159892-71-4 HCA

CN 1H-Tetrazole-1-ethanamine, N,N-dibutyl-5-[(2-chloroethyl)thio] -  
(9CI) (CA INDEX NAME)



IC ICM B41N003-08  
ICS G03F007-07

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and  
Other Reprographic Processes)  
Section cross-reference(s): 28

ST offset printing treating agent tetrazolythioethane; lithog offset  
printing treating agent; **oleophilization** lithog offset  
treating agent

IT Lithographic plates  
(offset, treating agent; treating agent for silver image offset  
**printing plate** contg. tetrazolythioethane  
deriv.)

IT 159892-60-1P  
(obtained by hydrogenation; treating agent for silver image  
offset **printing plate** contg.  
tetrazolythioethane deriv.)

IT **158520-74-2**  
(reaction with bromochloroethane; treating agent for silver image  
offset **printing plate** contg.  
tetrazolythioethane deriv.)

IT 159892-59-8P  
(reaction with hydrogen chloride; treating agent for silver image  
offset **printing plate** contg.  
tetrazolythioethane deriv.)

IT **159892-71-4P**  
(reaction with mercaptotetrazole???: treating agent for silver  
image offset **printing plate** contg.  
tetrazolythioethane deriv.)

IT 107-04-0, 1-Bromo-2-chloroethane  
(reaction with mercaptotetrazole???: treating agent for silver  
image offset **printing plate** contg.  
tetrazolythioethane deriv.)

IT 159892-61-2P 159892-62-3P 159892-63-4P 159892-64-5P  
159892-65-6P 159892-66-7P 159892-67-8P 159892-68-9P  
159892-69-0P 159892-70-3P  
(treating agent for silver image offset **printing**  
**plate** contg. tetrazolythioethane deriv.)

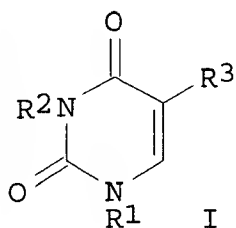
L68 ANSWER 15 OF 28 HCA COPYRIGHT 2003 ACS

121:217675 Resist composition for deep-ultraviolet ray. Yano, Ei;  
Watabe, Keiji; Namiki, Takahisa; Igarashi, Yoshikazu (Fujitsu Ltd,



Japan). Jpn. Kokai Tokkyo Koho JP 06110206 A2 19940422 Heisei, 4  
pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1992-258745  
19920929.

GI



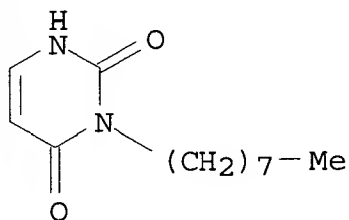
AB The resist contains a pyrimidine deriv. I (R1-2 = H, C1 -22 alkyl;  
R3 = H, Me). The resist is useful in manuf. of highly integrated  
circuits. The resist prevented halation and gave fine patterns.

IT 39588-96-0

(lithog deep-UV photoresist contg., for manuf. of  
integrated circuits)

RN 39588-96-0 HCA

CN 2,4(1H,3H)-Pyrimidinedione, 3-octyl- (9CI) (CA INDEX NAME)



IC ICM G03F007-004

ICS G03F007-004; G03F007-038; G03F007-039; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and  
Other Reprographic Processes)

Section cross-reference(s): 28, 76

ST pyrimidine deriv antihalation lithog photoresist;  
integrated circuit pyrimidine UV photoresist

IT Electric circuits

(integrated, photoresist compn. contg. pyrimidine deriv. for  
deep-UV lithog. fabrication of)

IT 29354-20-9 39588-96-0

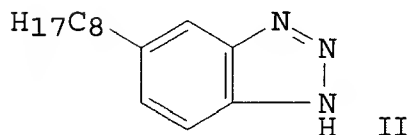
(lithog deep-UV photoresist contg., for manuf. of  
integrated circuits)

L68 ANSWER 16 OF 28 HCA COPYRIGHT 2003 ACS

118:244640 Processing of diffusion-transfer lithographic

plate. Matsubayashi, Tatsuro; Hashimoto, Takimi; Miura, Taketoshi (Mitsubishi Paper Mills Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 04323659 A2 19921112 Heisei, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1991-119355 19910423.

GI



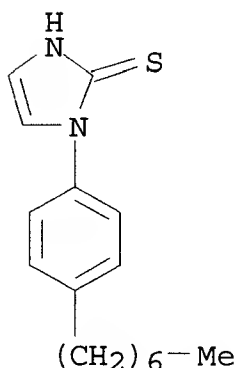
AB **Lithog.** plate using Ag complex diffusion-transfer method is processed in the presence of .gtoreq.1 of heterocyclic compd. RZ (I) (R = C4-9 alkyl; Z = 5-mercapto-1-phenyltetrazole, 2-mercapto-1-phenylimidazole, benzotriazole, 2-mercaptobenzothiazole, 2-mercaptobenzooxazole, all of them are bounding to R through benzene ring). The **lithog.** plate shows good ink-receptivity and printing durability, and gives clear images. An example of I is II.

IT 147382-77-2P

(prepn. of, developer contg., for diffusion-transfer **lithog.** plate)

RN 147382-77-2 HCA

CN 2H-Imidazole-2-thione, 1-(4-heptylphenyl)-1,3-dihydro- (9CI) (CA INDEX NAME)



IC ICM G03F007-30

ICS G03F007-07

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 28

ST silver complex diffusion transfer **lithog**; heterocyclic compd developer **lithog**

IT **Lithographic** plates

(diffusion-transfer, developer for, contg. heterocyclic compd.)

IT 135965-10-5 147382-79-4  
 (developer contg., for diffusion-transfer lithog.  
 plate)  
 IT 38344-74-0P 147382-77-2P 147382-78-3P  
 (prepn. of, developer contg., for diffusion-transfer  
 lithog. plate)

L68 ANSWER 17 OF 28 HCA COPYRIGHT 2003 ACS

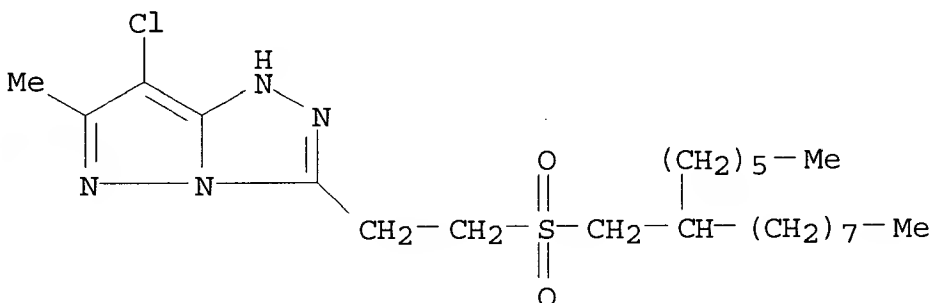
117:181643 Silver halide photographic material for color proof with  
 improved color tone. Sato, Koichi; Takada, Shun (Konica Co.,  
 Japan). Jpn. Kokai Tokkyo Koho JP 04030165 A2 19920203 Heisei, 30  
 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1990-137451  
 19900528.

AB A Ag halide photog. material having .gtoreq.1 Ag halide emulsion  
 layer contains emulsified **oleophilic** microparticles  
 coexisting with .gtoreq.1 noncolor-forming compd. with a H-accepting  
 parameter (pKHB) .gtoreq.2.5 and .gtoreq.1 color-forming coupler.

IT 115007-10-8 115773-39-2  
 (silver halide photog. material contg., for color proof)

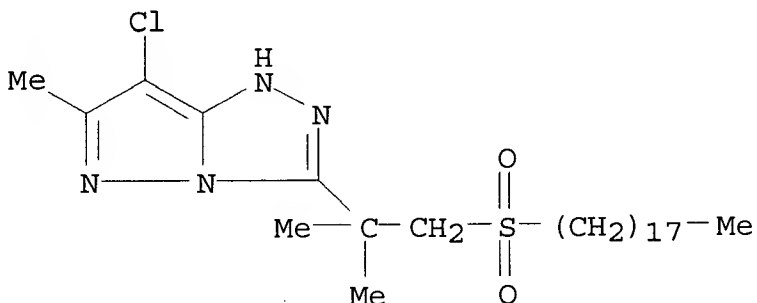
RN 115007-10-8 HCA

CN 1H-Pyrazolo[5,1-c]-1,2,4-triazole, 7-chloro-3-[2-[(2-  
 hexyldecyl)sulfonyl]ethyl]-6-methyl- (9CI) (CA INDEX NAME)



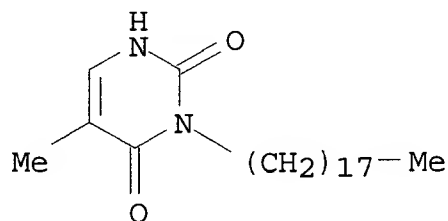
RN 115773-39-2 HCA

CN 1H-Pyrazolo[5,1-c]-1,2,4-triazole, 7-chloro-3-[1,1-dimethyl-2-  
 (octadecylsulfonyl)ethyl]-6-methyl- (9CI) (CA INDEX NAME)



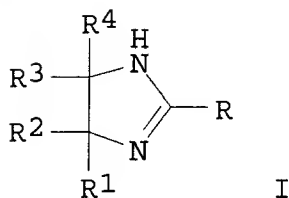
IC ICM G03C007-388

- ICS G03C001-06; G03C007-392; G03C007-396; G03F003-10  
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 ST silver halide photog material; **oleophilic** microparticle photog material; color proof photog material  
 IT **Printing plates**  
     (color proofs, silver halide photog. materials for)  
 IT Photographic emulsions  
     (**oleophilic** microparticles in, for color proofs)  
 IT 791-28-6 30744-85-5 63573-38-6 92589-17-8 93951-12-3  
     96758-05-3 98155-25-0 98909-00-3 101187-10-4 113450-40-1  
     **115007-10-8** 115280-49-4 **115773-39-2**  
     116526-87-5 125019-54-7 141135-26-4 141135-27-5 143525-92-2  
     143873-73-8  
     (silver halide photog. material contg., for color proof)
- L68 ANSWER 18 OF 28 HCA COPYRIGHT 2003 ACS  
 113:162577 Manufacture of dioxypyrimidine derivative thin film by Langmuir-Blodgett's technique. Yano, Ei; Tatsura, Satoshi (Fujitsu Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 02026669 A2 19900129 Heisei, 4 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1988-174763 19880713.
- AB The title method comprises: irradiating a dioxypyrimidine deriv. with UV to obtain a dimerized cis-dioxypyrimidine deriv.; and building up a Z-type dimerized cis-dioxypyrimidine deriv. buildup film on the substrate by Langmuir-Blodgett's technique. This thin film is useful in **photolithog.** or electron-beam **lithog.**
- IT **123144-02-5**, 3-Octadecyl thymine  
     (reaction of, dimerized cis-dioctadecylbisthymine from, for Langmuir-Blodgett thin film)
- RN 123144-02-5 HCA  
 CN 2,4(1H,3H)-Pyrimidinedione, 5-methyl-3-octadecyl- (9CI) (CA INDEX NAME)

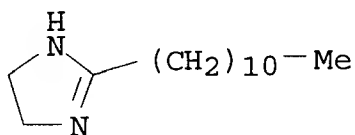


- IC ICM B05D001-20  
 ICS B05D007-24; C09K003-00; H01L021-368  
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 ST oxypyrimidine Langmuir Blodgett thin film; **photolithog** electron beam **lithog** thin film  
 IT **Lithography**  
     (electron-beam, dimerized cis-dioctadecylbisthymine)

- Langmuir-Blodgett buildup thin film for)
- IT **Lithography**  
(photo-, dimerized cis-dioctadecylbisthymine Langmuir-Blodgett buildup thin film for)
- IT 50-89-5, Thymidine, reactions 112-89-0, Octadecyl bromide 123115-27-5, 3-Octadecyl thymidine **123144-02-5**, 3-Octadecyl thymine  
(reaction of, dimerized cis-dioctadecylbisthymine from, for Langmuir-Blodgett thin film)
- L68 ANSWER 19 OF 28 HCA COPYRIGHT 2003 ACS
- 102:36786 Silver halide **lithographic** plates. (Konishiroku Photo Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 59116660 A2 19840705 Showa, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1982-230846 19821223.
- GI



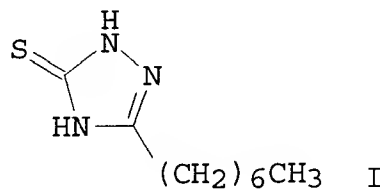
- AB In the process of making a **lithog. printing plate** by using a Ag halide photog. material, the surface of the **printing plate** with a Ag image is treated with a soln. contg. .gtoreq.1 compd. of the formula I (R = H, OH, NH<sub>2</sub>, aralkyl, alkyl, alkenyl, aryl, hydrazino, heterocyclic group, alkylthio, aralkylthio; R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub> = H, alkyl, aryl, heterocyclic group). The treatment prevents background staining without reducing ink receptivity of the image and increases the no. of **prints per plate**. It also eliminates the treatment by mercapto compds. or oxidizing compds. which are unfavorable from environmental protection view. Thus, a **printing plate** made from a Silver Master (Mitsubishi Paper Mill, Ltd.) and treated with the imidazoline I (R = Et; R<sub>1</sub> = Me; R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub> = H) had higher contact angle at image area and lower angle at non-image area in comparison with the sample treated with 3-mercapto-4-acetamido-5-n-heptyl-1,2,4-triazole.
- IT **10443-61-5**  
(**lithog.** plates with silver image treated by solns. contg., for improved ink receptivity and stain-free background)
- RN 10443-61-5 HCA
- CN 1H-Imidazole, 4,5-dihydro-2-undecyl- (9CI) (CA INDEX NAME)



IC G03F007-06  
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 ST imidazoline **lithog** plate background staining;  
**lithog** plate ink receptivity imidazoline; silver halide photosensitive **lithog** plate  
 IT **Lithographic** plates  
 (with silver images, processing soln. contg. imidazoline for)  
 IT 930-52-9 931-35-1 **10443-61-5** 23803-12-5 45534-04-1  
 61764-85-0 94054-14-5  
 (**lithog.** plates with silver image treated by solns.  
 contg., for improved ink receptivity and stain-free background)

L68 ANSWER 20 OF 28 HCA COPYRIGHT 2003 ACS  
 99:203606 Planographic **printing plate**. De Jaeger,  
 Antoine August; Bertels, Alfons Jozef; Poot, Albert Lucien; De  
 Keyzer, Rene Maria; Sels, Francis Jeanne (Agfa-Gevaert N. V.,  
 Belg.). Eur. Pat. Appl. EP 87176 A1 19830831, 26 pp. DESIGNATED  
 STATES: R: BE, DE, FR, GB. (English). CODEN: EPXXDW.  
 APPLICATION: EP 1983-200135 19830126. PRIORITY: GB 1982-5022  
 19820219.

GI



AB The prepn. of a planog. **printing plate** comprises  
 a treatment of a Ag image (formed by a Ag complex diffusion transfer  
 process on NiS or mixed crystal NiS.Ag2S development nuclei) with a  
 liq. **hydrophobizing** soln. contg. a heterocyclic mercapto  
 compd. Thus, a corona-treated subbed polyethylene-coated support  
 was coated with a Ag(Cl,Br) (1.8% of Br-) emulsion in an amt. of Ag  
 halide equiv. to 1.5 g of AgNO3/m2 (gelatin/AgNO3 = 1), dried,  
 overcoated with a compn. contg. H2O 520, an aq. 1% wetting agent  
 soln. contg. 1% Na isotetradecylsulfate 180, an aq. dispersion of  
 colloidal NiS.Ag2S nuclei 50, and a 5% aq. HCOH soln. 250 mL to give  
 a receiving layer with a development nuclei coverage of 0.0055 g/m2,  
 imagewise exposed, processed, treated with a stop bath, and immersed

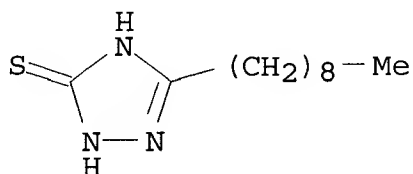
for 10 s in a soln. contg. I 1, di-Bu phthalate 2.5, polyoxyethylene glycol (av. mol. wt. 4000) 5 g, iso-PrOH 175 mL, and H<sub>2</sub>O to 1 L to give a pos. **plate** with good **printing** characteristics.

IT 7271-50-3 14803-83-9 32444-85-2  
87562-57-0

(in prepn. of planog. **printing plate**)

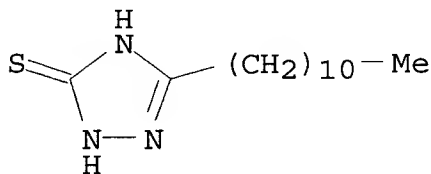
RN 7271-50-3 HCA

CN 3H-1,2,4-Triazole-3-thione, 1,2-dihydro-5-nonyl- (9CI) (CA INDEX NAME)



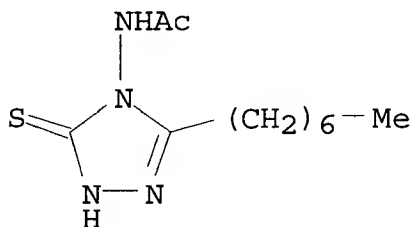
RN 14803-83-9 HCA

CN 3H-1,2,4-Triazole-3-thione, 1,2-dihydro-5-undecyl- (9CI) (CA INDEX NAME)



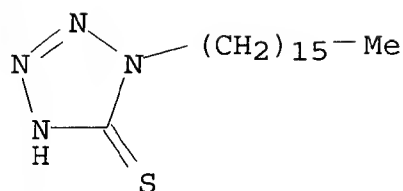
RN 32444-85-2 HCA

CN Acetamide, N-(3-heptyl-1,5-dihydro-5-thioxo-4H-1,2,4-triazol-4-yl)- (9CI) (CA INDEX NAME)



RN 87562-57-0 HCA

CN 5H-Tetrazole-5-thione, 1-hexadecyl-1,2-dihydro- (9CI) (CA INDEX NAME)

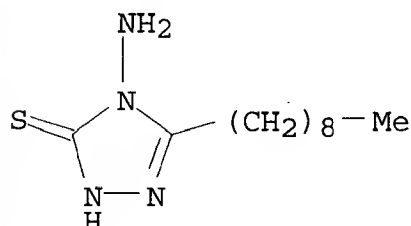


IT 87562-56-9P

(prepn. and application of, in converting silver image on planog.  
**printing plate into hydrophobic**  
ink-receptive image)

RN 87562-56-9 HCA

CN 3H-1,2,4-Triazole-3-thione, 4-amino-2,4-dihydro-5-nonyl- (9CI) (CA  
INDEX NAME)



IC G03F007-06

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and  
Other Reprographic Processes)

ST lithog plate **hydrophobizing** soln heptyltriazolethione;  
mercaptothiadiazole lithog plate prepn; planog **printing**  
**plate hydrophobizing** soln

IT Lithographic plates

(with silver image formed by diffusion transfer and reversal  
process, compn. for improving **hydrophobic**  
ink-receptivity of, contg. heterocyclic mercapto compd.)

IT **Printing plates**

(planog., with silver image formed by diffusion transfer and  
reversal process, compn. for improving **hydrophobic**  
ink-receptivity of, contg. heterocyclic mercapto compd.)

IT 1313-82-2, uses and miscellaneous 7761-88-8, uses and  
miscellaneous 13138-45-9 21548-73-2  
(in planog. **printing plate** prepn.)

IT 7271-48-9 7271-50-3 14803-83-9  
32444-85-2 87562-57-0

(in prepn. of planog. **printing plate**)

IT 7271-49-0P 38633-68-0P 72352-83-1P 87562-56-9P

(prepn. and application of, in converting silver image on planog.  
**printing plate into hydrophobic**  
ink-receptive image)

IT 2231-57-4 87562-58-1

(reaction of, in prepn. of heterocyclic mercapto compd. for



**hydrophobization of silver image in planog.  
printing plate)**

L68 ANSWER 21 OF 28 HCA COPYRIGHT 2003 ACS

98:181286 **Jet-printing inks.** (Canon K. K., Japan). Jpn. Kokai Tokkyo Koho JP 57094069 A2 19820611 Showa, 9 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1980-170639 19801202.

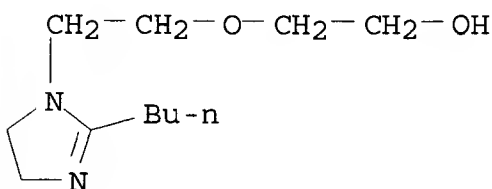
AB **Jet-printing inks** contain polyalkylene glycol ethers with 1-(2-hydroxyethyl)-2-alkylimidazoline. Thus, a compn. of C.I. 35255 5, diethylene glycol 20, 1,3-dimethyl-2-imidazolidinone 10, H<sub>2</sub>O 60, and octaethylene glycol ether with 1-(2-hydroxyethyl)-2-methylimidazoline [83890-12-4] 5 parts was filtered through a Teflon filter (pore size 1 .mu.), degassed, and used in a **jet-printing** app. (orifice diam. 50 .mu.) at 660 V and 4 kHz with good continuous and intermittent printing performances.

IT **83890-14-6**

(**jet-printing inks** contg.)

RN 83890-14-6 HCA

CN Ethanol, 2-[2-(2-butyl-4,5-dihydro-1H-imidazol-1-yl)ethoxy] - (9CI)  
(CA INDEX NAME)



IC C09D011-00; C09D011-16

CC 42-12 (Coatings, Inks, and Related Products)

ST **jet printing ink;**

hydroxyethylimidazoline ether ink compn; polyalkylene glycol ether

IT Polyoxyalkylenes

(ethers with (hydroxyethyl)alkylimidazoline, **jet printing inks** contg.)

IT **Inks**

(**jet-printing**, contg. polyalkylene glycol ether of (hydroxyethyl)imidazoline derivs.)

IT 695-94-3 83828-89-1 83828-90-4 83860-00-8 **83890-14-6**  
(**jet-printing inks** contg.)

IT 83844-60-4 83844-61-5 83860-00-8 83860-01-9 83860-02-0  
83860-03-1 83931-43-5  
(oligomeric, **jet-printing inks** contg.)

L68 ANSWER 22 OF 28 HCA COPYRIGHT 2003 ACS

97:47194 Single-stage developer and lacquer mixture for diazo printing forms. Von Gruenberg, Gregory; Golda, Eugene; Rowe, William (Polychrome Corp., USA). Ger. Offen. DE 3032151 A1 19820408, 20 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1980-3032151 19800826.

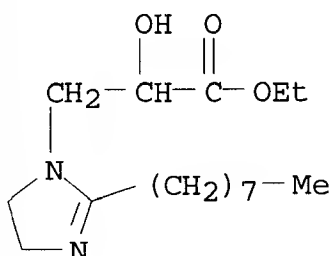
AB For a developer which removes the unexposed areas of a diazo sensitized offset plate without attacking the halftone dots and simultaneously leaves a protective lacquer on the image areas in .apprx.1 min, a homogeneous mixt. of an aq. and a resinous phase in a preferred 1-6:1 ratio is used. The aq. phase is a 10-20% soln. of a Li salt of an org. C7-18 OH compd. or acid, the other a 5-20% soln. of an ink-receptive film-forming resin (epoxy, phenolic, polyurethane, or polyester) in a water-miscible solvent. The pH of the developer may be for neg.-working plates 5-10, for pos. plates .gtoreq.12. It may also contain surfactants and <5% H3PO4 or (CO2H)2 for cleaning the Al surface. Thus, 2 solns. were prepd., A contg. Li benzoate 25 and 2-capryl-1-(Et .beta.-hydroxyprpionic acid)imidazoline (sic) 100 in water 100 parts, while B consisted of MeC5H11CO 60, Epon 1004 (epoxy resin) 7, Duponal Ep surfactant) 0.5 and naphthol red 16 parts. Of 2 Al plates sensitized with the addn. product of 2-hydroxy-4-methoxybenzophenone-5-sulfonic acid and a p-diazodiphenylamine-paraformaldehyde condensate in a resinous binder, exposed, developed, and mounted in an offset press, the one developed with A yielded 40,000 copies, while the one with the mixt. of A + B yielded 120,000 copies.

IT 82410-56-8

(developer-lacquer compns. contg., for diazo compd.-based printing plates)

RN 82410-56-8 HCA

CN 1H-Imidazole-1-propanoic acid, 4,5-dihydro-.alpha.-hydroxy-2-octyl-, ethyl ester (9CI) (CA INDEX NAME)



IC G03F007-02; G03F007-08

CC 74-10 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST diazo **printing plate** lacquer developer

IT Alcohols, uses and miscellaneous

Epoxy resins, uses and miscellaneous

Ketones, uses and miscellaneous

Phenolic resins, uses and miscellaneous

Polyesters, uses and miscellaneous

Rubber, urethane, uses and miscellaneous

Urethane polymers, uses and miscellaneous

(developer-lacquer compns. contg., for diazo compd.-based printing plates)

IT **Lithographic plates**

**Printing plates**

- (diaz compd.-based, developer-lacquer compns. for)
- IT Vinyl acetal polymers  
(formals, photosensitive **printing plates**  
contg. diazo compd. and, developer-lacquer compns. for)
- IT 67-63-0, uses and miscellaneous 67-68-5, uses and miscellaneous  
68-12-2, uses and miscellaneous 108-94-1, uses and miscellaneous  
109-86-4 110-43-0 110-49-6 123-91-1, uses and miscellaneous  
553-54-8 6448-95-9 9003-35-4 12626-50-5 25068-38-6  
69070-92-4 **82410-56-8**  
(developer-lacquer compns. contg., for diazo compd.-based  
**printing plates**)
- IT 30621-65-9 39457-35-7  
(photosensitive **printing plates** contg. diazo  
compd. and, developer-lacquer compns. for)
- IT 73882-69-6  
(photosensitive **printing plates** contg.,  
developer-lacquer compns. for)
- L68 ANSWER 23 OF 28 HCA COPYRIGHT 2003 ACS
- 97:47166 Improved aqueous developable photopolymerizable elements.  
Briney, Gary Clark; Fuerniss, Stephen Joseph (du Pont de Nemours, E.  
I., and Co., USA). Eur. Pat. Appl. EP 49504 A1 19820414, 38 pp.  
DESIGNATED STATES: R: BE, DE, FR, GB, LU. (English). CODEN:  
EPXXDW. APPLICATION: EP 1981-107888 19811003. PRIORITY: US  
1980-193919 19801006.
- AB An aq. developable photopolymer resist compn. which has improved  
rate of development comprises (1) an ethylenically unsatd. monomeric  
compd., (2) an org. acidic polymeric binder, (3) a photoinitiator  
system, and (4) .gtoreq.2 wt.% based on wt. of solids of an org.  
compd. selected from  $R(OCH_2CH_2)NOH$  ( $R = C_{13-18}$  alkyl,  
 $CH_3(CH_2)_7CH:CH(CH_2)_8$ ;  $n = 2-10$ ),  $RCON(CH_2CH_2O)_xH(CH_2CH_2O)_yH$  ( $R =$   
 $CH_3(CH_2)_7CH:CH(CH_2)_8$  alone or with a mixt. of alkyl chains with 16  
and 18 C;  $y + x = 2-10$ ),  $Na^+-O_3SCH(CH_2CO_2R)CO_2R$  ( $R = C_8-C_{13}$  straight  
or branched alkyl),  $C_{12}H_{25}C_6H_4-p-SO_3-NR_3^+$  ( $R = C_1-9$  alkyl),  
 $[C_{16}H_{33}N(Me)_3]^+Br^-$ ,  $RNHCH_2CH_2CO_2-Na^+$  ( $R =$  alkyl group derived from  
coconut oil), and  $[Me_3N+CH_2Ph]OH$ . Thus, a poly(ethylene  
terephthalate) support was coated with a compn. contg.  $CH_2Cl_2$  218,  
MeOH 10, 2-ethoxyethanol 2, styrene-maleic anhydride copolymer  
iso-Bu ester 31.3, acrylic acid-Et acrylate-Me methacrylate  
copolymer 31.3, trimethylolpropane triacrylate 10.3,  
poly(oxyethyl)trimethylolpropane triacrylate 15,  
2,2'-bis(o-chlorophenyl)-4,4',5,5'-tetraphenylbiimidazole 3.8,  
Michler's ketone 0.2, Na bis(2-ethylhexyl)sulfosuccinate 4,  
2-mercaptobenzoxazole 0.6, ethylene glycol-propylene glycol  
copolymer 3, tris(4,4',4''-dimethylaminophenyl)methane 0.1,  
benztriazole 0.4, 1,4,4-trimethyl-2,3-diazobicyclo[3.2.2]non-2-ene-  
N,N-dioxide 0.08, and Victoria Green 0.03 part, air dried, laminated  
to a polyethylene cover sheet, and, after removal of the cover  
sheet, hot roll laminated at 210-220.degree.F to a Cu-clad panel.  
The support was removed and the clearing time necessary to dissolve  
the unexposed image areas was measured visually in a Du Pont Model  
ADS-24 processor employing a 1% aq. soln. of  $Na_2CO_3.H_2O$  at

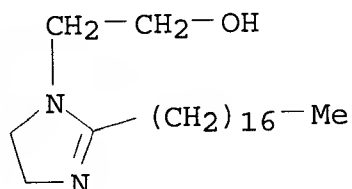
105.degree.F. The clearing time was 25 s vs. 45 s for a Na sulfosuccinate-free control.

IT 95-19-2 16058-17-6 36060-61-4

(photopolymerizable resist compn. contg., aq. development of)

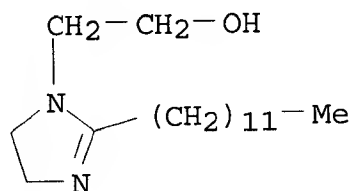
RN 95-19-2 HCA

CN 1H-Imidazole-1-ethanol, 2-heptadecyl-4,5-dihydro- (9CI) (CA INDEX NAME)



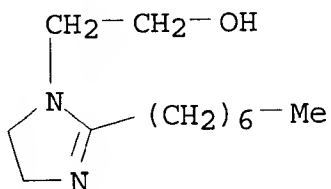
RN 16058-17-6 HCA

CN 1H-Imidazole-1-ethanol, 2-dodecyl-4,5-dihydro- (9CI) (CA INDEX NAME)



RN 36060-61-4 HCA

CN 1H-Imidazole-1-ethanol, 2-heptyl-4,5-dihydro- (9CI) (CA INDEX NAME)



IC G03C001-68

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST photopolymer resist aq development printing; photoresist photopolymer aq development lithog; elec circuit

photopolymer imaging

IT Electric circuits

**Lithographic plates**

**Printing plates**

(photopolymerizable aq. developable compn. for)

IT 57-09-0 95-19-2 2673-22-5 9005-00-9 16058-17-6

20542-42-1 24938-91-8 25190-05-0 36060-61-4

82332-32-9 82332-33-0

(photopolymerizable resist compn. contg., aq. development of)

L68 ANSWER 24 OF 28 HCA COPYRIGHT 2003 ACS

93:159210 Nontreatment type planographic **printing**

**plate** materials. Ikeda, Tomoaki; Mizobuchi, Yuzo; Nahara, Akira; Ono, Yoshihiro; Shinozaki, Fumiaki; Tomotsu, Takeshi; Washizawa, Yasuo; Yoshida, Satoshi (Fuji Photo Film Co., Ltd., Japan). U.S. US 4197124 19800408, 29 pp. Cont.-in-part of U.S. Ser. No. 709,744, abandoned. (English). CODEN: USXXAM. APPLICATION: US 1978-875708 19780206.

AB Photoproduced nontreatment-type planog. **printing**

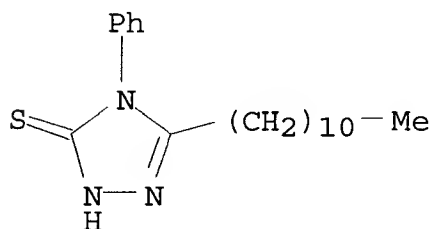
**plates**, which can be used in the printing process directly after exposure without any chem. treatment and have a large difference in the ratio of hydrophilicity to **oleophilicity** between the exposed and nonexposed areas, improved shelf-life, and printing durability, are obtained with a light sensitive layer comprised of the photoreactive mixt. of an inorg. material and .gtoreq.1 metal or metal compd. and addnl. (compared to prior art) an org. compd. which effects the reaction of the former 2 compds. Addn. of the org. compd. (benzotriazole, alkylene oxide polymers, PhOH and its derivs., amines, hydrazines, org. compds. contg. a SO<sub>2</sub>H or SO<sub>3</sub>H group) increases the quality of the printing image and changes the **printing plate** from a neg. (without the org. compd.) to a pos. type. Thus, GeS<sub>1.7</sub> was vacuum deposited on an anodically oxidized Al support to give 11 .mu.g/cm<sup>2</sup>, then 2-mercaptobenzothiazole (I) and 99.99% pure Ag were deposited to give 2.4 and 6 .mu.g/cm<sup>2</sup>, resp., and then imagewise exposed for 3 min (PS light app., 2 kW) to give a pos.-working plate that produced 1000 printed copies upon H<sub>2</sub>O-wetting and inking. The same procedure without the I produced a low quality neg.-working lithog master.

IT 39578-65-9

(composite photosensitive compns. contg. inorg. compd., metal and, pos.-working, for ready-for-use planog. plates)

RN 39578-65-9 HCA

CN 3H-1,2,4-Triazole-3-thione, 2,4-dihydro-4-phenyl-5-undecyl- (9CI)  
(CA INDEX NAME)



IC G03C001-76; G03F007-02

NCL 430302000

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic Processes)

ST planog plate photoimaging master nontreatment; lithog **printing plate** nontreatment

IT 56-04-2 57-13-6, uses and miscellaneous 60-10-6 61-73-4  
 62-56-6, uses and miscellaneous 81-88-9 86-93-1 99-76-3  
 112-85-6 121-47-1 135-88-6 141-84-4 148-18-5 149-30-4  
 536-17-4 548-62-9 583-39-1 625-52-5 637-01-4 1072-71-5  
 1226-46-6 1470-61-7 1498-88-0 2268-79-3 3019-18-9  
 3084-25-1 5284-68-4 5351-69-9 6232-82-2 14070-49-6  
 14324-55-1 16128-38-4 17452-09-4 17654-88-5 33682-66-5  
 38803-65-5 38942-50-6 **39578-65-9** 51761-19-4  
 60563-39-5 63967-06-6 63967-07-7 63967-08-8 63967-09-9  
 63967-10-2 74931-01-4

(composite photosensitive compns. contg. inorg. compd., metal and, pos.-working, for ready-for-use planog. plates)

L68 ANSWER 25 OF 28 HCA COPYRIGHT 2003 ACS

88:180306 Lithographic **printing plates** from silver halide emulsions. Tsubai, Yasuo; Yoshida, Akio; Suzuki, Shigeyoshi (Mitsubishi Paper Mills, Ltd., Japan). Ger. Offen. DE 2731710 19780119, 28 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1977-2731710 19770713.

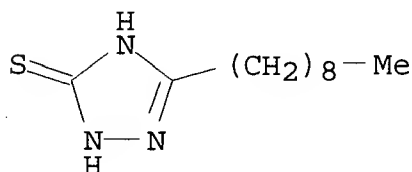
AB The residual Ag halides of a neg. emulsion on a paper, film, or metal support are rendered **oleophilic** after development of an Ag image by a conversion bath of pH 4-8 contg./L 0.01-10 g of an org. thio or thione compd. and .gtoreq.1 Ag halide solvent, such as SCN-, a thiourea, or halide, to aid in the conversion of the halides to compds. of low soly. during the 5-20 s treatment. A sublayer of 0.5-2.5 g gelatin with 0.1-2 g/m<sup>2</sup> of 2-10.μ SiO<sub>2</sub> particles may be used, and 0.01-1 g/m<sup>2</sup> of th SiO<sub>2</sub> may be added to the emulsion to prolong the press life of the plates. Thus, a polyethylene-coated and corona discharge-treated paper was coated with 1.2 g gelatin contg. HCHO and dimethylolurea and with 700 mg/m<sup>2</sup> of 5.μ SiO<sub>2</sub>. The orthochromatic high-contrast Ag(Cl,Br) 330 nm grain size emulsion was applied at AgNO<sub>3</sub> 1.2 g, gelatin 700 mg, and SiO<sub>2</sub> 100 mg/m<sup>2</sup>. The exposed paper was squeezed after 30 s development to remove excess developer and immersed for 30 s at 25.degree. in a conversion bath contg./L KSCN 20, citric acid 10, Na citrate 35, 2-mercapto-5-propyl-1,3,5-oxadiazole 1 g, and iso-PROH 200 mL. The squeezed and dried plate yielded >5000 clean copies in an offset printer.

IT 7271-50-3 32444-85-2

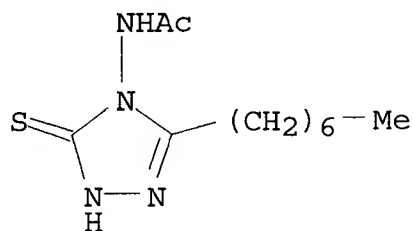
(**oleophilization** solns. contg., for lithog. plates from photog. emulsions)

RN 7271-50-3 HCA

CN 3H-1,2,4-Triazole-3-thione, 1,2-dihydro-5-nonyl- (9CI) (CA INDEX NAME)



RN 32444-85-2 HCA  
 CN Acetamide, N-(3-heptyl-1,5-dihydro-5-thioxo-4H-1,2,4-triazol-4-yl) -  
 (9CI) (CA INDEX NAME)



IC G03F007-06  
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic Processes)  
 ST silver halide lithog plate **oleophilization**  
 IT Lithographic plates  
 (from silver halide emulsions, **oleophilization** solns.  
 contg. thiol or thione in silver halide solvent for)  
 IT Thiols, uses and miscellaneous  
 Thiones  
 (**oleophilization** solns. contg., for lithog. plates from  
 photog. emulsions)  
 IT 31130-16-2  
 (**oleophilization** solns. contg, for lithog. plates)  
 IT 51-17-2 62-56-6, uses and miscellaneous 77-92-9, uses and  
 miscellaneous 333-20-0 625-53-6 994-36-5 **7271-50-3**  
 7757-83-7 7772-98-7 10124-31-9 **32444-85-2** 38733-42-5  
 38978-20-0, uses and miscellaneous 66473-10-7  
 (**oleophilization** solns. contg., for lithog. plates from  
 photog. emulsions)

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87:109432 Lithographic **printing plate** material.  
 Ikeda, Tomoaki; Mizobuchi, Yuzo; Shinozaki, Fumiaki; Ono, Yoshihiro;  
 Washizawa, Yasuo; Yoshida, Satoshi; Tomotsu, Takeshi (Fuji Photo  
 Film Co., Ltd., Japan). Ger. Offen. DE 2634196 19770217, 99 pp.  
 (German). CODEN: GWXXBX. APPLICATION: DE 1976-2634196 19760729.  
 AB Lithog. plates which can be used directly after irradiation consist  
 essentially of a support coated with a light-sensitive layer contg.  
 an inorg. compd., e.g. Ge sulfide, a metal or metal compd. which  
 reacts with the inorg. compd. when irradiated, e.g. Ag, and an org.  
 compd. which affects the reaction between the metal or metal compd.  
 and the inorg. compd. Thus, GeS<sub>2.5</sub>, 1-phenyl-5-mercaptopotetrazole  
 (I), and Ag were successively vacuum deposited on a curved,  
 sand-abraded, and anodically oxidized Al plate in amts. of 15, 0.6,  
 and 6.0 .mu.g/cm<sup>2</sup>, resp., and the plate was covered with a pos. mask  
 and irradiated 1.5 min to form a sharp pos. image. When mounted in  
 a printing machine, wetted with H<sub>2</sub>O, and coated with ink the  
**plate** gave 2000 **prints**, whereas when prepd.

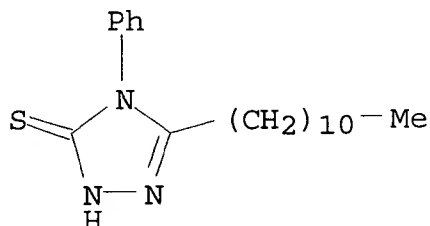
without vacuum deposition of I the plate had poor **oleophilic** or inking properties and the image was not sharp.

IT 39578-65-9

(photosensitive layer contg. germanium sulfide, silver and, for lithog. plates with improved **oleophilicity**)

RN 39578-65-9 HCA

CN 3H-1,2,4-Triazole-3-thione, 2,4-dihydro-4-phenyl-5-undecyl- (9CI)  
(CA INDEX NAME)



IC G03C001-72

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic Processes)

IT Lithographic plates

(with photosensitive layer contg. germanium sulfide, silver, and org. compd. with improved **oleophilicity**)

IT 56-04-2 57-13-6, uses and miscellaneous 60-10-6 61-73-4  
62-56-6, uses and miscellaneous 81-88-9 86-93-1 99-76-3  
112-85-6 121-47-1 135-88-6 140-95-4 141-84-4 148-18-5  
149-30-4 536-17-4 548-62-9 583-39-1 625-52-5 637-01-4  
1072-71-5 1226-46-6 1470-61-7 1498-88-0 2268-79-3  
3019-18-9 5284-68-4 5351-69-9 6232-82-2 14070-49-6  
16128-38-4 17452-09-4 17654-88-5 33682-66-5 38803-65-5  
38942-50-6 39578-65-9 51761-19-4 60563-39-5  
63967-06-6 63967-07-7 63967-08-8 63967-09-9 63967-10-2

(photosensitive layer contg. germanium sulfide, silver and, for lithog. plates with improved **oleophilicity**)

IT 1335-23-5 7440-22-4, uses and miscellaneous 7440-36-0, uses and miscellaneous 7440-50-8, uses and miscellaneous 7440-74-6, uses and miscellaneous 7783-96-2

(photosensitive materials contg. germanium sulfide, org. compd. and, for lithog. plates with improved **oleophilicity**)

IT 1315-01-1 12025-34-2 12737-58-5 51682-03-2 59087-75-1  
64052-11-5

(photosensitive materials contg. silver, org. compd. and, for lithog. plates with improved **oleophilicity**)

L68 ANSWER 27 OF 28 HCA COPYRIGHT 2003 ACS

78:10203 Offset **printing plates**. Suzuki, Shigeyoshi; Futaki, Kiyoshi; Tosa, Senji; Shimizu, Kazuo (Mitsubishi Paper Mills, Ltd.). Ger. Offen. DE 2165358 19720706, 17 pp. (German). CODEN: GWXXBX. PRIORITY: JP 1970-130263 19701230.

AB The ink-receptivity of Ag images on their hydrophilic background is improved by reaction with heterocyclic compds. contg. a thiol or a



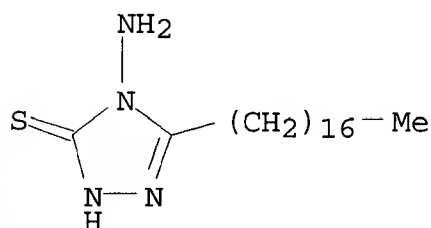
thioketone group and with H, allyl, a C<12alkyl, or aralkyl group as N-substituent. The compds. are applied as <5% aq. solns. of pH 8-10 or in aq. org. solvent mixts., which may also contain a hydrophilic binder. Thus, a **printing plate** was treated with a soln. consisting of H<sub>2</sub>O 300 ml. iso-PrOH 200 ml, glycerol 20 g, 1,3-diethylbenzimidazoline-2-thione and an acrylamide-vinyl imidazole (93:7) copolymer 1 g each.

IT 23455-87-0 32444-85-2

(lithographic processing solns. contg., for **oleophillic** silver images)

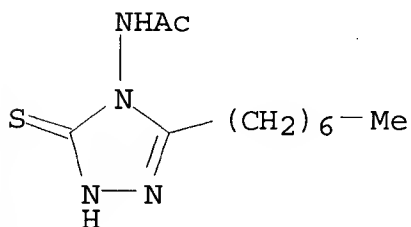
RN 23455-87-0 HCA

CN 3H-1,2,4-Triazole-3-thione, 4-amino-5-heptadecyl-2,4-dihydro- (9CI)  
(CA INDEX NAME)



RN 32444-85-2 HCA

CN Acetamide, N-(3-heptyl-1,5-dihydro-5-thioxo-4H-1,2,4-triazol-4-yl)- (9CI) (CA INDEX NAME)



IC G03F

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic Processes)

ST **printing plate** diffusion transfer; offset

**printing plate** prepn

IT Lithography

(processing solns. contg. aminomercaptotriazole derivs. for **oleophillic** silver images for)

IT 9011-16-9 37356-92-6

(lithographic processing solns. contg. aminomercaptotriazole derivs. and, for **oleophillic** silver images)

IT 16407-34-4 23455-87-0 32444-85-2 32479-68-8

39573-31-4 39722-54-8

(lithographic processing solns. contg., for **oleophillic** silver images)

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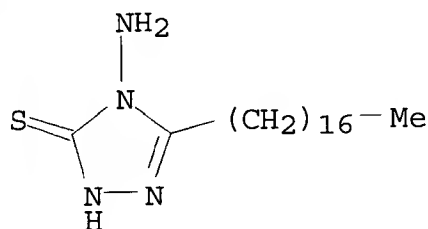
59:19401 Original Reference No. 59:3470h,3471a Photographic diffusion transfer process for planographic printing. Laessig, Wolfgang; Guenther, Eberhard (Agfa A.-G.). US 3063837 19621113, 4 pp. (Unavailable). PRIORITY: DE 19581107.

AB Planographic **printing plates** are produced by converting sol. Ag halide complexes, having the form of a diffusion transferred pos. image, into **hydrophobic**, ink receptive org. Ag compds. by treating the complexes with heterocyclic mercaptans. Pos. paper is coated with a gelatin soln. contg. 34 parts 15% aq. gelatin, 6 parts aq. satd. BaCl<sub>2</sub>, and 1 part 7.5% aq. saponin and dried at 80.degree. to produce a layer of 2-4 g./m.<sup>2</sup> 220, 3 parts 50% aq. Na<sub>2</sub>S<sub>2</sub>O<sub>8</sub>, 1.2 parts 10% aq. NaOH, 0.8 part 3% aq. formalin, and 0.6 part 7.5% aq. saponin, dried at 80.degree. and stored 8 days at 40.degree.. A com. neg. paper, Agfa AG "Copyrapid," is exposed by visible light to the object to be reproduced, and developed in contact with the above pos. paper by treating with a soln. contg. 1000 parts H<sub>2</sub>O, 2 parts 1 phenyl 3 pyrazolidinone, 15 parts hydroquinone, 4 parts KBr, 100 parts Na<sub>2</sub>SO<sub>3</sub>, 10 parts NaOH, and 5 parts Na<sub>2</sub>SO<sub>3</sub>. After the papers are in contact for 20 sec., the pos. is sep'd. and treated for 30 sec. with a soln. contg. 10 g. Nt-(N3octadecylsemicarbazide)dithiocarboxylic Me ester in a mixt. of 400 ml. N NaOH, 200 ml. H<sub>2</sub>O, and 100 ml. PrOH. The paper is thoroughly rinsed. When inked the pos. image yields 300 prints.

IT 23455-87-0, 4H-1,2,4-Triazole-3-thiol, 4-amino-5-heptadecyl-  
92701-22-9, 2-Benzimidazolethiol, 1-octyl-  
(in **printing-plate** prepn. from photographic  
diffusion-transfer image)

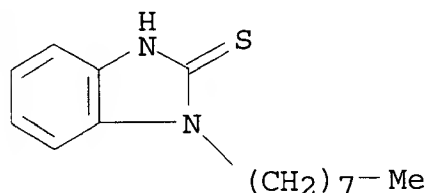
RN 23455-87-0 HCA

CN 3H-1,2,4-Triazole-3-thione, 4-amino-5-heptadecyl-2,4-dihydro- (9CI)  
(CA INDEX NAME)



RN 92701-22-9 HCA

CN 2-Benzimidazolethiol, 1-Octyl- (7CI) (CA INDEX NAME)



NCL 096029000

CC 11 (Radiation Chemistry and Photochemistry)

IT 2182-97-0, 2-Thiazolethiol, 4-heptadecyl- 4858-31-5,  
 1,3,4-Thiadiazole-2-thiol, 5-(dodecylthio)- **23455-87-0**,  
 4H-1,2,4-Triazole-3-thiol, 4-amino-5-heptadecyl- 74543-20-7,  
 Xanthic acid, dodecyl-, sodium salt **92701-22-9**,  
 2-Benzimidazolethiol, 1-octyl- 95008-52-9, Carbazic acid,  
 3-(octadecylcarbamoyl)dithio-, methyl ester 95423-58-8, Carbazic  
 acid, dithio-, octadecyl ester  
 (in **printing-plate** prepn. from photographic  
 diffusion-transfer image)

=&gt; d 169 1-7 cbib abs hitstr hitind

L69 ANSWER 1 OF 7 HCA COPYRIGHT 2003 ACS

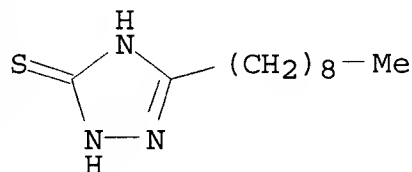
128:210901 Platemaking of silver complex diffusion transfer  
**lithographic** plates. Kondo, Toshio; Araki, Yutaka; Fujioka,  
 Hajime; Seko, Makiko (Mitsubishi Paper Mills, Ltd., Japan). Jpn.  
 Kokai Tokkyo Koho JP 10048829 A2 19980220 Heisei, 6 pp. (Japanese).  
 CODEN: JKXXAF. APPLICATION: JP 1996-208308 19960807.

AB In the title process in which **lithog.** plate materials,  
 contg. phys. developing nuclei between the Al support and the Ag  
 halide emulsion layer, are imagewise exposed and processed  
 successively with a developing soln., a washing soln., and a  
 finishing soln. to give **lithog.** plates having  
 ink-receptive metallic Ag image areas, .gtoreq.1 of these processes  
 is carried out in the presence of a compd. that make the image areas  
**lipophilic** and the washing soln. contains a proteinase.  
**Lithog.** plates with improved ink receptivity are obtained.

IT **7271-50-3**  
 (platemaking of silver salt diffusion transfer **lithog.**  
 plate using **lipophilicity**-improving agent and  
 proteinase)

RN 7271-50-3 HCA

CN 3H-1,2,4-Triazole-3-thione, 1,2-dihydro-5-nonyl- (9CI) (CA INDEX  
 NAME)



IC ICM G03F007-07

ICS B41C001-10; B41N003-08; G03F007-00; G03F007-32

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and  
 Other Reprographic Processes)

ST silver salt diffusion transfer **lithog** plate;

**lipophilicity** improving agent **lithog** plate;  
proteinase finishing soln **lithog** platemaking

- IT **Lithographic** plates  
(silver salt diffusion transfer; platemaking of silver salt diffusion transfer **lithog.** plate using **lipophilicity**-improving agent and proteinase)
- IT 7271-50-3 9001-92-7, Proteinase 9002-07-7, Trypsin  
9014-01-1, Biopraser AL-15 66473-10-7, 2-Mercapto-5-heptyl-oxadiazole 68043-64-1  
(platemaking of silver salt diffusion transfer **lithog.** plate using **lipophilicity**-improving agent and proteinase)

L69 ANSWER 2 OF 7 HCA COPYRIGHT 2003 ACS

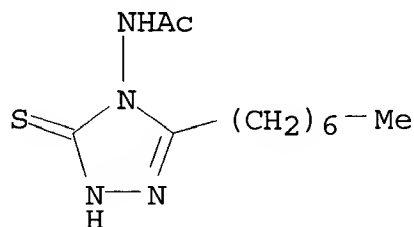
113:106482 Aqueous solution containing **oleophilic** compound for treating **lithographic** plates. Barnett, Anthony M.; Green, Jeffrey K. (Kodak Ltd., UK; Eastman Kodak Co.). PCT Int. Appl. WO 9003600 A1 19900405, 13 pp. DESIGNATED STATES: W: JP, US; RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1989-GB1145 19890928. PRIORITY: GB 1988-22746 19880928.

AB An aq. soln. for conditioning or fixing **lithog.** plates prepd. by the Ag salt diffusion-transfer photog. process comprises an **oleophilic** argentophile, a quaternary ammonium surfactant, and a quaternary ammonium surfactant contg. alkyleneoxy units and represented by the general formula  $N+R_1R_2[(R_3)_mH](R_4)_nX-$  [R<sub>1</sub> = an aliph. hydrocarbon group; R<sub>2</sub> = an aliph. hydrocarbon group or (R<sub>5</sub>)pH; R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub> = alkyleneoxy; m + n + p .gtoreq. 5, preferably 10-20; X- = an anion]. The **oleophilic** argentophile is preferably selected from the group consisting of 1-phenyl-5-mercaptotetrazole, 3-mercapto-4-acetamido-5-heptyl-1,2,4-triazole, 2-mercaptobenzothiazole, and bis-2-mercaptothiadiazone derivs.

IT 32444-85-2, 3-Mercapto-4-acetamido-5-heptyl-1,2,4-triazole  
(silver **lithog.** plate conditioning solns. contg. quaternary ammonium surfactants and)

RN 32444-85-2 HCA

CN Acetamide, N-(3-heptyl-1,5-dihydro-5-thioxo-4H-1,2,4-triazol-4-yl)-(9CI) (CA INDEX NAME)

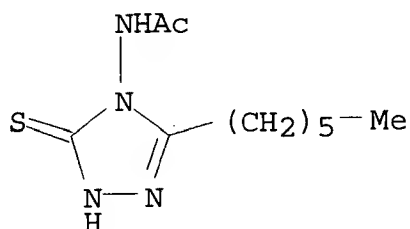


IC ICM G03F007-07

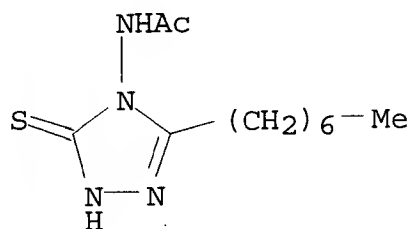
ICS B41N003-08

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and

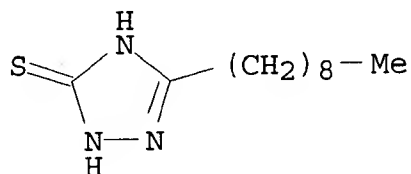
- Other Reprographic Processes)
- ST silver **lithog** plate **oleophilic** argentophile;  
quaternary ammonium surfactant **lithog** plate
- IT **Lithographic** plates  
(silver, aq. conditioning solns. contg. **oleophilic**  
argentophile and quaternary ammonium surfactants contg. alk. oxy  
groups for)
- IT 77-92-9, Citric acid, uses and miscellaneous 107-41-5, Hexylene  
glycol 6484-52-2, Ammonium nitrate, uses and miscellaneous  
9004-32-4, Carboxymethylcellulose  
(fixing solns. contg. **oleophilic** argentophile and  
quaternary ammonium surfactants and, for **lithog.** plates  
prepd. by silver salt diffusion-transfer photog. process)
- IT 57-09-0, Cetyltrimethyl ammonium bromide 333-20-0, Potassium  
thiocyanate 7681-11-0, Potassium iodide, uses and miscellaneous  
15708-41-5, Sodium ferric EDTA  
(silver **lithog.** plate conditioning solns. contg.  
**oleophilic** argentophile and quaternary ammonium  
surfactant contg. alk. oxy groups and)
- IT 86-93-1, 1-Phenyl-5-mercaptopotetrazole 149-30-4,  
2-Mercaptobenzothiazole 27608-31-7D, derivs. **32444-85-2**,  
3-Mercapto-4-acetamido-5-heptyl-1,2,4-triazole  
(silver **lithog.** plate conditioning solns. contg.  
quaternary ammonium surfactants and)
- L69 ANSWER 3 OF 7 HCA COPYRIGHT 2003 ACS
- 112:88363 Photosensitive materials for offset plate production.  
Nishinoiri, Hiroshi; Takaya, Yoshikazu; Tsubai, Yasuo; Kondo,  
Toshiro (Mitsubishi Petrochemical Co., Ltd., Japan). Ger. Offen. DE  
3906676 A1 19890907, 17 pp. (German). CODEN: GWXXBX. APPLICATION:  
DE 1989-3906676 19890302. PRIORITY: JP 1988-50667 19880303; JP  
1988-50668 19880303.
- AB Photosensitive materials for the prodn. of offset plates by a  
high-intensity, short-time imagewise exposure, such as a laser  
exposure, are composed of an underlayer, .gtoreq.1 Ag halide  
emulsion layer, an interlayer from a water-permeable, film-forming  
copolymer, such as gelatin, and a layer with nuclei for phys.  
development. After exposure the materials are developed by the Ag  
complex diffusion-transfer process followed by treatment with an  
oxidn. agent for Ag and with an **oleophilic** org. compd.
- IT **125342-88-3**  
(developing solns. contg., for photosensitive plates for offset  
plate prepn.)
- RN 125342-88-3 HCA
- CN Acetamide, N-(3-hexyl-1,5-dihydro-5-thioxo-4H-1,2,4-triazol-4-yl)-  
(9CI) (CA INDEX NAME)



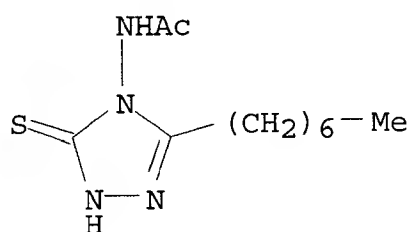
- IC ICM G03F007-06  
ICS G03C001-42; G03C001-08; G03C005-54
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- ST **lithog** plate photog laser sensitive
- IT **Lithographic** plates  
(photosensitive plates with gelatin interlayer between silver halide emulsion layer and phys. development nucleus-contg. layer for prodn. of)
- IT **125342-88-3**  
(developing solns. contg., for photosensitive plates for offset plate prepn.)
- L69 ANSWER 4 OF 7 HCA COPYRIGHT 2003 ACS
- 103:62618 **Lithographic** fix solution. Green, J. K. (Kodak Ltd., UK). Brit. UK Pat. Appl. GB 2146582 A1 19850424, 3 pp. (English). CODEN: BAXXDU. APPLICATION: GB 1983-25064 19830920.
- AB A completely aq. **lithog.** fix soln. is described which contains a hydrophilic colloid (e.g., gum arabic or CM-cellulose), an **oleophilic** argentophile (e.g., a mercapto-substituted N-contg. heterocyclic compd.), and a cationic surfactant (e.g., an amine, quaternized amine, or amide contg. a polyethoxy or polyglycyl group) capable of solubilizing the **oleophilic** argentophile. Thus, a **lithog.** fix soln. contained Ethoduomeen T25 4, 1-phenyl-5-mercaptotetrazole 1.8, CM-cellulose (7L2P) 12, NH4NO3 5 g, 10% aq. citric acid to pH 4, and water to 1 L.
- IT **32444-85-2**  
(**lithog.** aq. fix soln. contg.)
- RN 32444-85-2 HCA
- CN Acetamide, N-(3-heptyl-1,5-dihydro-5-thioxo-4H-1,2,4-triazol-4-yl)-(9CI) (CA INDEX NAME)



- IC ICM B41N003-00  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
ST **lithog** aq fix soln  
IT **Lithography**  
(aq. fix solns. for)  
IT Quaternary ammonium compounds, uses and miscellaneous  
(**lithog**. aq. fix solns. contg.)  
IT Amides, compounds  
Amines, compounds  
(polyethoxylated or polyglycidylated, **lithog**. aq. fix solns. contg.)  
IT Surfactants  
(cationic, **lithog**. aq. fix soln. contg.)  
IT 77-92-9, uses and miscellaneous 86-93-1 149-30-4 6484-52-2,  
uses and miscellaneous 9000-01-5 9004-32-4 **32444-85-2**  
(**lithog**. aq. fix soln. contg.)
- L69 ANSWER 5 OF 7 HCA COPYRIGHT 2003 ACS  
89:120898 Treatment of **lithographic** plate. Tsubai, Yasuo;  
Enamido, Shogo (Mitsubishi Paper Mills, Ltd., Japan). Jpn. Kokai  
Tokkyo Koho JP 52150105 19771213 Showa, 10 pp. (Japanese). CODEN:  
JKXXAF. APPLICATION: JP 1976-67409 19760609.
- GI For diagram(s), see printed CA Issue.  
AB In a **lithog**. plate obtained by forming a Ag image on the  
surface of a Ag halide photog. emulsion layer by the  
diffusion-transfer technique and then using the Ag image as an  
**oleophilic** and ink-receptive surface, following the transfer  
development treatment, the plate is treated with .gtoreq.1 org.  
compd., capable of forming with Ag ions, a compd. (or compds.),  
which is (are) more stable than the complex formed by the solvent  
for Ag halide and which is also highly insol., and a solvent for Ag  
halide. The org. compds. may be .gtoreq.1 compd. selected from RSH  
(R = alkyl, aryl, aralkyl with .gtoreq.10 C atoms), I (R = H,  
.gtoreq.12 C alkyl, aryl, aralkyl; Z = at. groupings capable of  
giving 5- or 6- membered heterocycles with C and N), and II (Z =  
same as above). Treatment with these compds. results in clear  
copies and the plate is highly durable. Specific examples of the  
above org. compds. are: 2-mercapto-5-butyl-1,3,4-oxadiazole,  
2-mercapto-5-pentyl-1,3,4-oxadiazole, 3-mercapto-4-acetamido-5-  
heptyl-1,2,4-triazole, 1-ethyl-2-mercaptobenzimidazole,  
3-mercapto-5-nonyl-1,2,4-triazole, and 1,3-diethylbenzoimidazoline-2-  
thione.
- IT **7271-50-3 32444-85-2**  
(treating solns. contg., for **lithog**. plates prepd. by  
diffusion-transfer photog.)
- RN 7271-50-3 HCA  
CN 3H-1,2,4-Triazole-3-thione, 1,2-dihydro-5-nonyl- (9CI) (CA INDEX  
NAME)



RN 32444-85-2 HCA  
 CN Acetamide, N-(3-heptyl-1,5-dihydro-5-thioxo-4H-1,2,4-triazol-4-yl) -  
 (9CI) (CA INDEX NAME)



IC G03F007-06  
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic Processes)  
 ST mercaptodiazole processing photog lithog plate;  
 mercaptotriazole processing photog lithog plate  
 IT **Lithographic** plates  
 (by diffusion-transfer photog., treating solns. contg.  
 mercaptotriazole and related compd. for)  
 IT Photographic processing  
 (diffusion-transfer, in prepn. of **lithog.** plates,  
 treating solns. contg. mercaptotriazole and a related compd. for)  
 IT **7271-50-3 32444-85-2 32479-68-8 39573-31-4**  
**58017-09-7 67374-69-0**  
 (treating solns. contg., for **lithog.** plates prepd. by  
 diffusion-transfer photog.)

L69 ANSWER 6 OF 7 HCA COPYRIGHT 2003 ACS

84:97775 **Lithographic** fixing compositions. Bass, J. D. (UK).  
 Research Disclosure, 140, 33-6 (English) 1975. CODEN: RSDSBB.  
 ISSN: 0374-4353.

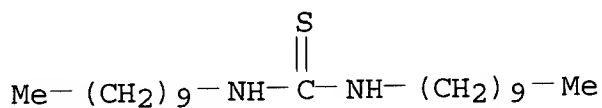
AB Mercaptoesters, mercaptoalkanes, alkylthioethanethiols,  
 alkylaminoethanethiols, branched chain alkylmercaptans, alicyclic  
 mercaptans, heterocyclic thiols, thioureas, isothiuronium salts,  
 quaternary ammonium salts, and sulfonium salts are incorporated as  
**oleophilic** materials in fixing compns. to increase the ink  
 receptivity of the Ag image formed esp. by diffusion-transfer  
 photog. on a suitable support. A typical **oleophilic**  
 compd. for the above use is HS(CH<sub>2</sub>)<sub>n</sub>CO<sub>2</sub>C<sub>18</sub>H<sub>37</sub>, where n = 1 or 2.  
 IT **7614-64-4 13183-80-7 36933-50-3**  
**54244-10-9 58473-98-6 58474-00-3**



(lithog. plate oleophilic silver image  
ink-receptivity enhancement by, in fixing soln.)

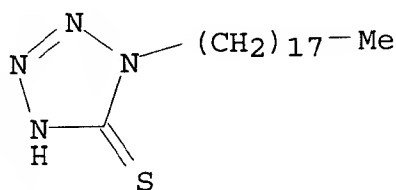
RN 7614-64-4 HCA

CN Thiourea, N,N'-didecyl- (9CI) (CA INDEX NAME)



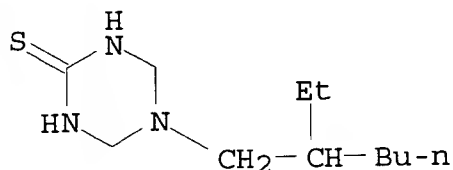
RN 13183-80-7 HCA

CN 5H-Tetrazole-5-thione, 1,2-dihydro-1-octadecyl- (9CI) (CA INDEX NAME)



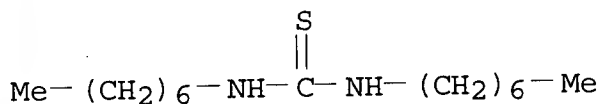
RN 36933-50-3 HCA

CN 1,3,5-Triazine-2(1H)-thione, 5-(2-ethylhexyl)tetrahydro- (9CI) (CA INDEX NAME)



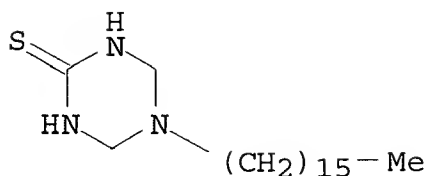
RN 54244-10-9 HCA

CN Thiourea, N,N'-diheptyl- (9CI) (CA INDEX NAME)

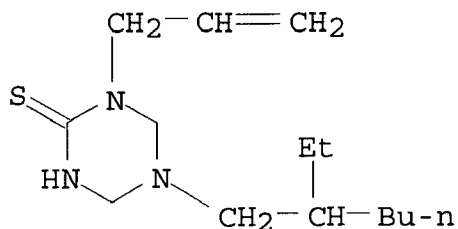


RN 58473-98-6 HCA

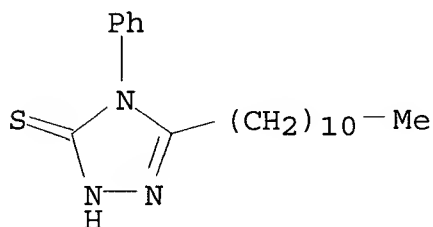
CN 1,3,5-Triazine-2(1H)-thione, 5-hexadecyltetrahydro- (9CI) (CA INDEX NAME)



RN 58474-00-3 HCA  
 CN 1,3,5-Triazine-2(1H)-thione, 5-(2-ethylhexyl)tetrahydro-2-(2-propenyl)- (9CI) (CA INDEX NAME)



IT 39578-65-9  
 (lithog. plate processing soln. contg., for  
 oleophilic silver image ink-receptivity enhancement)  
 RN 39578-65-9 HCA  
 CN 3H-1,2,4-Triazole-3-thione, 2,4-dihydro-4-phenyl-5-undecyl- (9CI)  
 (CA INDEX NAME)



CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic Processes)  
 ST lithog fixing oleophilic silver image  
 IT Lithographic plates  
 (silver oleophilic image fixation in, compd. for  
 ink-receptivity enhancement of)  
 IT 86-93-1 111-88-6 112-55-0 143-10-2 149-30-4 872-35-5  
 1249-81-6 1424-14-2 2637-37-8 2669-95-6 2669-97-8  
 2885-00-9 3001-66-9 3004-42-0 3746-39-2 3898-08-6  
 3955-58-6 4270-04-6 4292-25-5 4858-29-1 5284-75-3  
 5397-08-0 5891-05-4 5891-06-5 5977-96-8 6380-71-8  
 6489-25-4 6588-78-9 7575-23-7 7614-64-4 10047-28-6  
 10220-46-9 13183-80-7 16215-21-7 21083-47-6  
 23510-28-3 23832-18-0 25103-09-7 25103-58-6 25360-09-2

25360-10-5	28539-15-3	30374-01-7	31778-15-1	35855-01-7
<b>36933-50-3</b>	39163-76-3	39163-79-6	53787-06-7	
<b>54244-10-9</b>	58462-26-3	58462-27-4	58473-81-7	
58473-82-8	58473-83-9	58473-84-0	58473-85-1	58473-86-2
58473-87-3	58473-88-4	58473-89-5	58473-90-8	58473-91-9
58473-92-0	58473-93-1	58473-94-2	58473-95-3	58473-96-4
58473-97-5	<b>58473-98-6</b>	58473-99-7	<b>58474-00-3</b>	
58474-01-4	58474-02-5	58474-03-6	58474-04-7	58474-05-8
58474-06-9	58474-08-1	58474-10-5	58474-12-7	58474-13-8
58474-14-9	58474-15-0	58474-16-1	58474-17-2	58474-19-4
58474-20-7	58593-63-8			

(**lithog.** plate **oleophilic** silver image  
ink-receptivity enhancement by, in fixing soln.)

IT 28983-37-1 **39578-65-9**

(**lithog.** plate processing soln. contg., for  
**oleophilic** silver image ink-receptivity enhancement)

L69 ANSWER 7 OF 7 HCA COPYRIGHT 2003 ACS

83:50807 **Lithographic** plate. (Mitsubishi Paper Mills, Ltd.,  
Japan). Brit. GB 1373415 19741113, 5 pp. (English). CODEN:  
BRXXAA. APPLICATION: GB 1971-59831 19711222.

GI For diagram(s), see printed CA Issue.

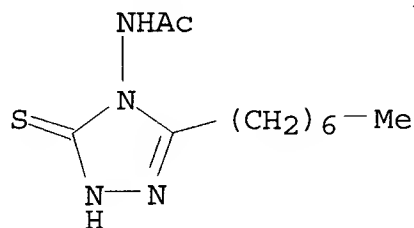
AB Treatment of a diffusion-transfer **oleophilic** offset  
**lithog.** master plate with an aq. or org.-aq. soln. of SH or  
thione group-contg. compds. gave high ink receptivity and low  
staining. Thus, a soln. of 3.5 g I in 150 ml iso-PrOH and 250 ml  
H<sub>2</sub>O was used to wipe the surface of a plate, >1000 copies being  
obtained, with a clear image on the 1st impression. Ink spread was  
further reduced by using a 5-hexadecyl-substituted compd. Five  
other examples were given, e.g., with II and III.

IT **32444-85-2**

(for **lithog.** plates)

RN 32444-85-2 HCA

CN Acetamide, N-(3-heptyl-1,5-dihydro-5-thioxo-4H-1,2,4-triazol-4-yl)-  
(9CI) (CA INDEX NAME)



IC G03F; G03C

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic  
Processes)

ST damping fluid **lithog** printing

IT **Lithographic** plates

(offset, diffusion transfer, of improved **oleophilicity**)

IT 16407-34-4 **32444-85-2** 32479-68-8 39573-31-4

39722-54-8 56240-89-2  
(for lithog. plates)

=> d his 174-

FILE 'HCA' ENTERED AT 18:33:34 ON 13 FEB 2003

L74 QUE PLATE OR PLATES  
L75 81 S L33 AND L74  
L76 17 S L70 AND L75  
L77 28 S L70 AND L31  
L78 45 S L76 OR L77  
L79 8 S L70 NOT L78

=> d 178 1-45 cbib abs hitstr hitind

L78 ANSWER 1 OF 45 HCA COPYRIGHT 2003 ACS

137:312526 Ink compositions azo dyes and amines for **ink-**

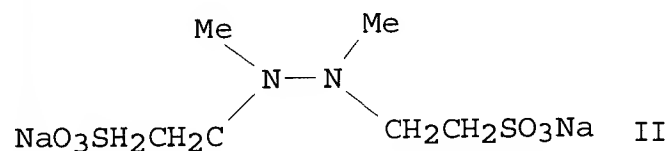
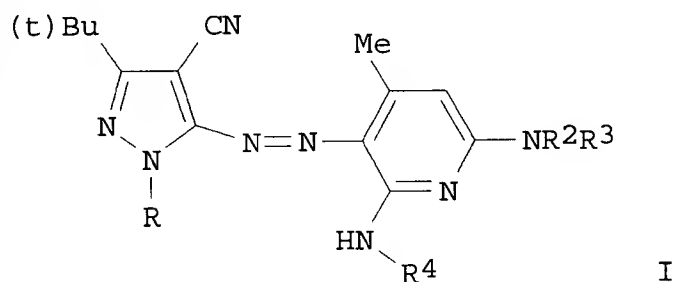
**jet recording.** Omatsu, Tadashi; Noro, Masaki;

Fujiwara, Toshiki (Fuji Photo Film Co., Ltd., Japan). Eur. Pat.

Appl. EP 1251154 A1 20021023, 74 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR. (English). CODEN: EPXXDW.

APPLICATION: EP 2002-8394 20020412. PRIORITY: JP 2001-114186 20010412.

GI



AB An ink compn. for **ink-jet recording** comprises: an azo dye having an arom. nitrogen-contg. 6-membered heterocycle as a coupling component; a compd. represented by R1R2R3N (R1 and R2 represent a hydrogen atom, an aliph. group, an arom. group, a heterocyclic group, an acyl group, an aliph. oxycarbonyl

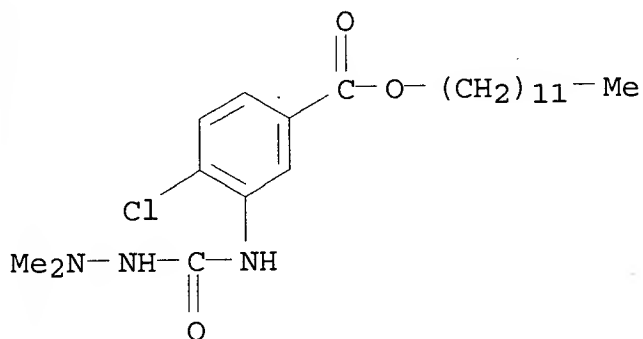
group, an arom. oxycarbonyl group, an aliph. sulfonyl group, an arom. sulfonyl group, a substituted or unsubstituted carbamoyl group, or a substituted or unsubstituted thiocarbamoyl group; R3 represents an aliph. group, an arom. group, a heterocyclic group, an aliph. oxy group, an arom. oxy group, an aliph. thio group, an arom. thio group, an acyloxy group, an aliph. oxycarbonyloxy group, an arom. oxycarbonyloxy group, a substituted or unsubstituted amino group or a hydroxy group; and at least one of a pair R1 and R2, a pair R2 and R3, and a pair R3 and R1 may be coupled to form a 5-, 6- or 7-membered ring with the proviso that the ring formed is not a 2,2,6,6-tetraalkylpiperidine skeleton); and an aq. medium wherein the azo dye is dissolved or dispersed in the aq. medium. An ink contained I dye, II, and solvents, surfactants, and additives.

IT 433710-83-9 433710-96-4 433710-99-7

(ink compns. azo dyes and amines for ink-jet recording)

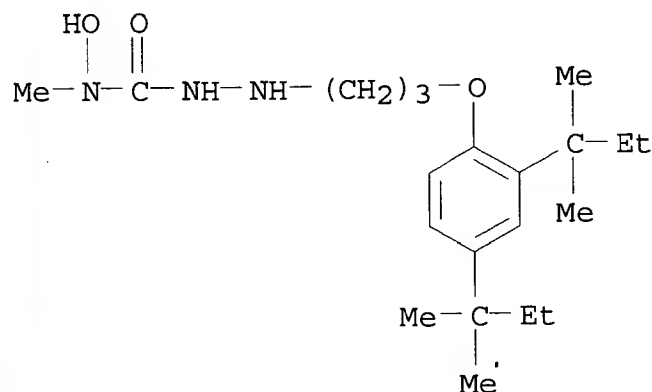
RN 433710-83-9 HCA

CN Benzoic acid, 4-chloro-3-[[[(2,2-dimethylhydrazino)carbonyl]amino]-, dodecyl ester (9CI) (CA INDEX NAME)

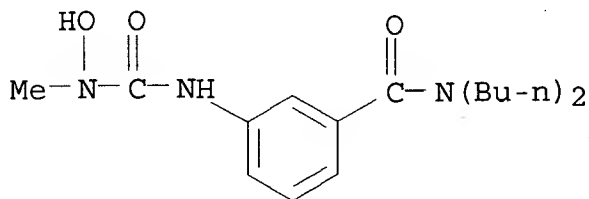


RN 433710-96-4 HCA

CN Hydrazinecarboxamide, 2-[3-[2,4-bis(1,1-dimethylpropyl)phenoxy]propyl]-N-hydroxy-N-methyl- (9CI) (CA INDEX NAME)



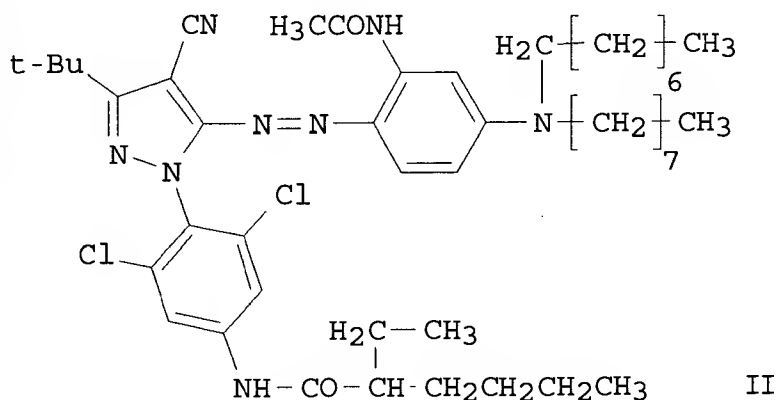
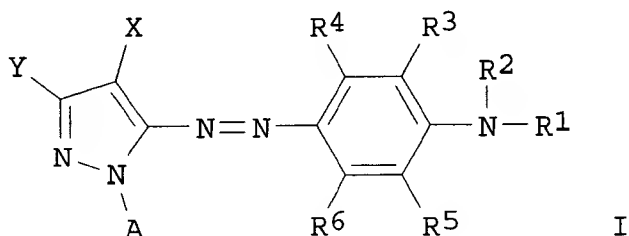
RN 433710-99-7 HCA  
 CN Benzamide, N,N-dibutyl-3-[[ (hydroxymethylamino) carbonyl] amino] -  
 (9CI) (CA INDEX NAME)



IC ICM C09D011-00  
 CC 42-12 (Coatings, Inks, and Related Products)  
 ST **jet ink** azo dye amine  
 IT Azo dyes  
     (ink compns. azo dyes and amines for **ink-jet recording**)  
 IT **Inks**  
     (**jet-printing**; ink compns. azo dyes and amines for **ink-jet recording**)  
 IT 127-07-1 3710-84-7 35046-92-5 54711-45-4 57980-94-6  
 69938-76-7 89463-71-8 139995-45-2 145022-35-1 209545-31-3  
 223507-11-7 414894-91-0 414894-94-3 414894-97-6 414894-99-8  
 414895-06-0 414895-10-6 414895-12-8 414895-14-0 414895-29-7  
 433710-83-9 433710-93-1 433710-94-2 433710-96-4  
 433710-99-7  
     (ink compns. azo dyes and amines for **ink-jet recording**)  
 IT 473314-01-1 473314-02-2 473314-03-3 473314-04-4 473314-05-5  
 473314-06-6 473314-07-7 473314-10-2 473314-12-4 473314-14-6  
 473314-16-8 473314-18-0  
     (ink compns. azo dyes and amines for **ink-jet recording**)

L78 ANSWER 2 OF 45 HCA COPYRIGHT 2003 ACS  
 137:21600 **Jet-printing ink** compositions  
 with good fastness and water resistance and image-forming method.  
 Omatsu, Tadashi; Noro, Masaki (Fuji Photo Film Co., Ltd., Japan).  
 Jpn. Kokai Tokkyo Koho JP 2002167531 A2 20020611, 56 pp.  
 (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-363201 20001129.

GI



AB The comps. include NR101R102R103 (R101, R102 = H, aliph., arom., and heterocyclic groups, etc.; R103 = aliph., arom., and aliph. thioxy groups, etc.) and oil-sol. azo dyes I [R1, R2 = (substituted) alkyl, alkenyl, cycloalkyl, aralkyl; R3-R6 = H, halo, alkyl, etc.; X = electron-withdrawing group having Hammett .sigma.p const. of .gtoreq.0.20; Y = secondary or tertiary alkyl, (substituted) aryl; A = nonmetal at. groups forming 5-8-membered rings] dissolved in org. solvents having high m.ps. and dispersed in aq. media. Thus, II and Na dioctylsulfosuccinate were dissolved in a mixt. comprising (MeC6H5)3P:O, (Me2CHCCH2CHMeCH2O)3P:O, and Et acetate and dispersed in water to give an aq. emulsion. Image formed with ink contg. the emulsion and Me2NN(CH2CH2CO2C8H17)2 showed no blur after soaking in water for 10 s and good light and heat fastness.

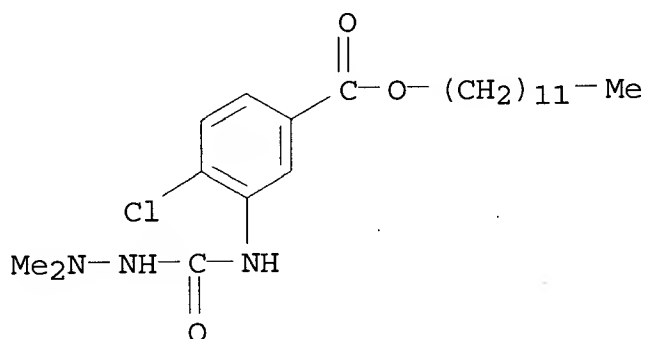
IT 433710-83-9 433710-85-1 433710-96-4  
433710-99-7

(discoloration prevention agents; **jet-printing**

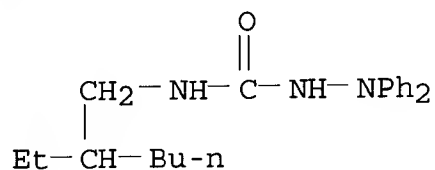
**ink** comps. with good fastness and water resistance)

RN 433710-83-9 HCA

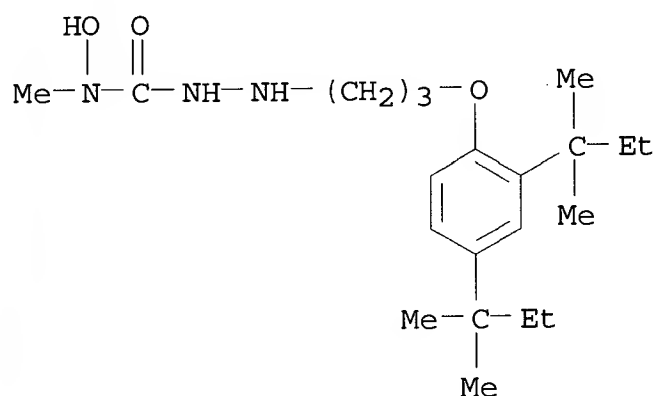
CN Benzoic acid, 4-chloro-3-[[ (2,2-dimethylhydrazino) carbonyl] amino] -, dodecyl ester (9CI) (CA INDEX NAME)



RN	433710-85-1	HCA		
CN	Hydrazinecarboxamide, N-(2-ethylhexyl)-2,2-diphenyl- (9CI) (CA			
	INDEX NAME)			



RN	433710-96-4	HCA		
CN	Hydrazinecarboxamide, 2-[3-[2,4-bis(1,1-dimethylpropyl)phenoxy]propyl]-N-hydroxy-N-methyl- (9CI) (CA INDEX NAME)			

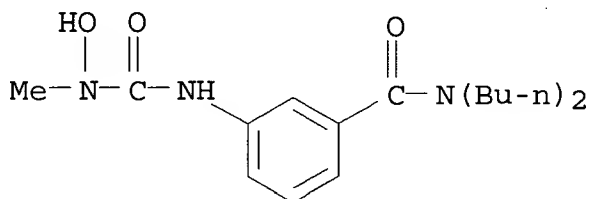


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RN      433710-99-7   HCA
CN      Benzamide, N,N-dibutyl-3-[[ (hydroxymethylamino) carbonyl] amino]-
        (9CI)   (CA INDEX NAME)

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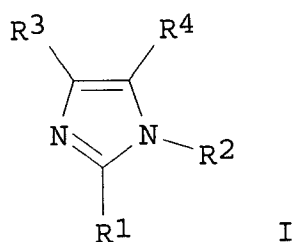
- IC ICM C09D011-00  
ICS B41J002-01; B41M005-00
- CC 42-12 (Coatings, Inks, and Related Products)  
Section cross-reference(s): 74
- ST oil sol azo dye **jet printing ink**;  
dimethyl dioctyloxycarbonylethyl hydrazine **jet printing ink**; water resistance azo dye **jet printing ink**; light fastness azo dye **jet printing ink**; discoloration prevention agent hydrazine azo dye ink
- IT Oximes  
(discoloration prevention agents; **jet-printing ink** compns. with good fastness and water resistance)
- IT Discoloration prevention agents  
(hydrazines or oximes; **jet-printing ink** compns. with good fastness and water resistance)
- IT Ink-jet printing  
(**jet-printing ink** compns. with good fastness and water resistance)
- IT Water-resistant materials  
(**jet-printing inks**; **jet-printing ink** compns. with good fastness and water resistance)
- IT Inks  
(**jet-printing**, water-resistant; **jet-printing ink** compns. with good fastness and water resistance)
- IT Inks  
(**jet-printing**, water-thinned, contg. oil-sol. dyes; **jet-printing ink** compns. with good fastness and water resistance)
- IT Azo dyes  
(oil-sol.; **jet-printing ink** compns. with good fastness and water resistance)
- IT 302-01-2, Hydrazine, uses 621-12-5 15973-74-7 53731-89-8  
433710-77-1 433710-79-3 433710-81-7 **433710-83-9**  
**433710-85-1** 433710-89-5 433710-91-9 433710-92-0  
433710-93-1 433710-94-2 433710-95-3 **433710-96-4**  
433710-98-6 **433710-99-7** 433711-00-3 433711-01-4  
(discoloration prevention agents; **jet-printing ink** compns. with good fastness and water resistance)
- IT 377776-97-1 377777-01-0 377777-10-1 433711-02-5 433711-03-6  
(dyes; **jet-printing ink** compns.)

with good fastness and water resistance)

L78 ANSWER 3 OF 45 HCA COPYRIGHT 2003 ACS

136:393236 Toners containing imidazole and resins and method for manufacture thereof. Fujikawa, Hiroyuki; Kobori, Naokuni; Fujimoto, Masaki (Canon Inc., Japan). Jpn. Kokai Tokkyo Koho JP 2002148864 A2 20020522, 51 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-348976 20001116.

GI



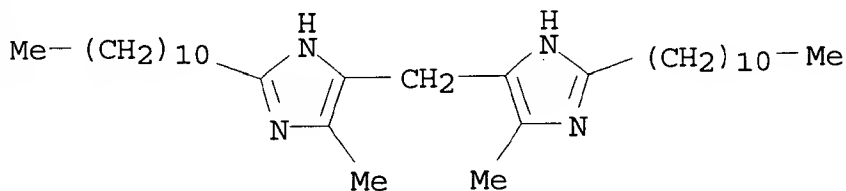
AB The title toner contains a resin components and imidazole, wherein the resin component contains a vinyl resin having a carboxy group and a vinyl resin having a glycidyl group, wherein Z-av. mol. wt. (Mz) is .gtoreq.400,000 according to mol. wt. distribution of THF sol. portion of the toner measured by GPC, wherein the resin component in the toner has 5-50 % THF insol. part, and wherein the imidazole has structure I ( R1-4 = H, alkyl, aryl, etc.). The toner shows the good offset-resistance and the high blocking resistance.

IT 96608-90-1 219141-63-6 219141-64-7

(imidazole in toner)

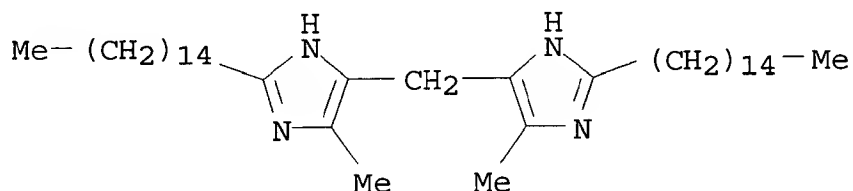
RN 96608-90-1 HCA

CN 1H-Imidazole, 4,4'-methylenebis[5-methyl-2-undecyl- (9CI) (CA INDEX NAME)

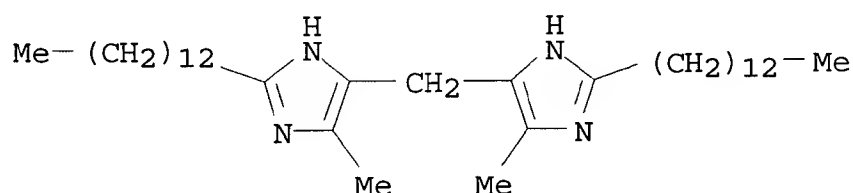


RN 219141-63-6 HCA

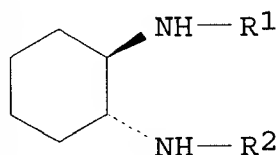
CN 1H-Imidazole, 4,4'-methylbis[5-methyl-2-pentadecyl- (9CI) (CA INDEX NAME)



RN 219141-64-7 HCA  
 CN 1H-Imidazole, 4,4'-methylenebis[5-methyl-2-tridecyl- (9CI) (CA INDEX NAME)



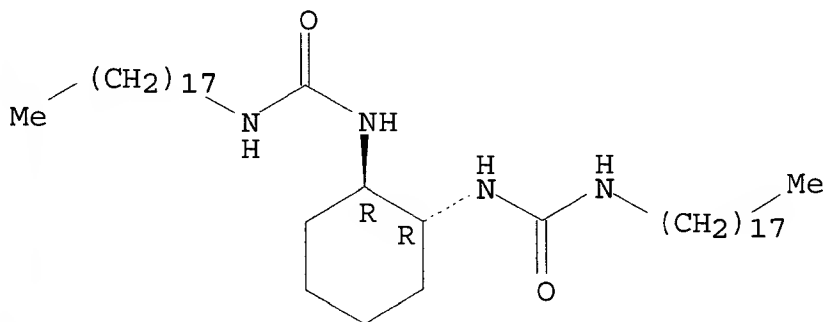
IC ICM G03G009-087  
 ICS G03G009-097  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 Section cross-reference(s): 35  
 IT Pigments, nonbiological  
 (toner-jet ink; toners contg. resin components and imidazole and method for manuf. thereof)  
 IT 38668-46-1 52659-19-5 96608-90-1 126140-34-9  
 219141-63-6 219141-64-7 220427-26-9  
 276870-38-3 276870-40-7  
 (imidazole in toner)  
 L78 ANSWER 4 OF 45 HCA COPYRIGHT 2003 ACS  
 136:254566 Ink jet printing sheet with excellent glossiness and physical properties. Wakata, Yuichi; Suzuki, Katsuyoshi; Yamamoto, Mizuki (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002079743 A2 20020319, 15 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-268512 20000905.  
 GI



I

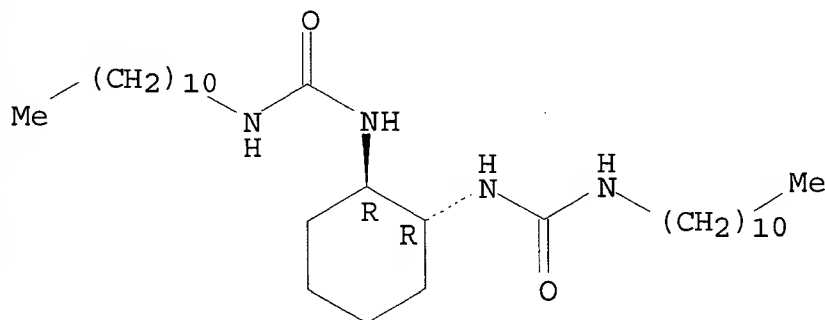
- AB The invention relates to an **ink jet printing** sheet which includes a gelation agent I (R1, R2 = CONHR3, COR4; R3, R4 = C1-20-alkyl, aryl, aralkyl) capable of gelling org. solvents except water. The ink receiving layer comprises the above gelation agent, inorg. pigment microparticles, water-sol. polymer, and polymer contg. amino and/or ammonium groups. The ink receiving layer may further contain a boric crosslinking agent for crosslinking the water-sol. polymer. The **ink jet printing** sheet shows excellent glossiness and phys. properties like ink absorption, light-resistance, water-resistance, durability, etc.
- IT 213816-43-4P 215789-00-7P 403796-07-6P  
(gelation agent; **ink jet printing** sheet contg. gelation agent to improve glossiness and phys. properties)
- RN 213816-43-4 HCA  
CN Urea, N,N''-(1R,2R)-1,2-cyclohexanediylbis[N'-octadecyl-, rel- (9CI)  
(CA INDEX NAME)

Relative stereochemistry.



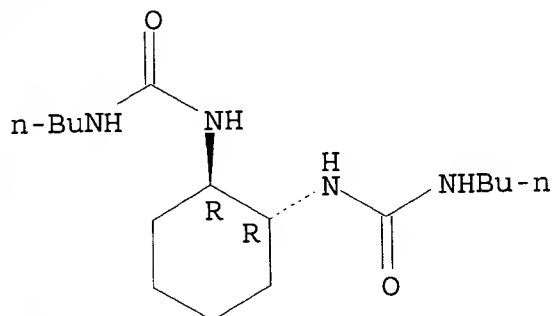
- RN 215789-00-7 HCA  
CN Urea, N,N''-(1R,2R)-1,2-cyclohexanediylbis[N'-undecyl-, rel- (9CI)  
(CA INDEX NAME)

Relative stereochemistry.



RN 403796-07-6 HCA  
 CN Urea, N,N''-(1R,2R)-1,2-cyclohexanediylbis[N'-butyl-, rel- (9CI)  
 (CA INDEX NAME)

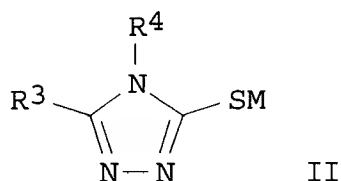
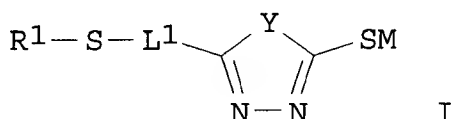
Relative stereochemistry.



- IC ICM B41M005-00  
 ICS B41J002-01; B05D005-04  
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and  
 Other Reprographic Processes)  
 ST **ink jet printing** sheet gelation agent  
 recording paper  
 IT Gelation agents  
     **Ink-jet recording** sheets  
     (**ink jet printing** sheet contg.  
     gelation agent to improve glossiness and phys. properties)  
 IT 7631-86-9, Aerosil 300, uses  
     (colloidal, in ink receiving layer, Aerosil 300; **ink**  
     **jet printing** sheet contg. gelation agent to  
     improve glossiness and phys. properties)  
 IT 111-36-4, Butyl isocyanate 112-16-3, Dodecanoic acid chloride  
     112-96-9, Octadecyl isocyanate 1121-22-8, trans-1,2-  
     Cyclohexanediamine  
     (gelation agent prepn.; **ink jet**  
     **printing** sheet contg. gelation agent to improve  
     glossiness and phys. properties)  
 IT 213816-43-4P 215789-00-7P 403796-07-6P  
     (gelation agent; **ink jet printing**  
     sheet contg. gelation agent to improve glossiness and phys.  
     properties)  
 IT 403796-08-7  
     (in ink receiving layer; **ink jet**  
     **printing** sheet contg. gelation agent to improve  
     glossiness and phys. properties)  
 IT 30551-89-4, Poly(allyl amine)  
     (mordant in ink receiving layer; **ink jet**  
     **printing** sheet contg. gelation agent to improve  
     glossiness and phys. properties)

136:207723 Silver salt DTR (diffusion transfer reversal) processing solution for offset **lithographic printing plate**. Sumioka, Koichi (Mitsubishi Paper Mills, Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002062659 A2 20020228, 12 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-292293 20000926. PRIORITY: JP 2000-168667 20000606.

GI



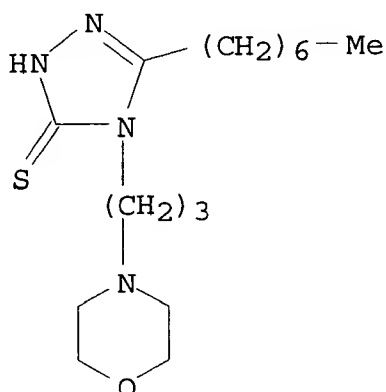
AB The title processing soln. contains a compd. represented by I (R1 = aliph.; L1 = divalent connecting group; Y = O, NR2; R2 = H, amino, aliph.; M = H, alkali metal, ammonium) or II (R3, R4 = aliph.; M = H, alkali metal, ammonium). The offset **printing plate** processed by the above processing soln. shows improved ink-reception, reduced greasing, and excellent running stability.

IT 400767-57-9P

(Ag salt DTR (diffusion transfer reversal) processing soln. for offset **lithog. printing plate** to improve ink-reception, reduce greasing, and improve running stability)

RN 400767-57-9 HCA

CN 3H-1,2,4-Triazole-3-thione, 5-heptyl-2,4-dihydro-4-[3-(4-morpholinyl)propyl]- (9CI) (CA INDEX NAME)

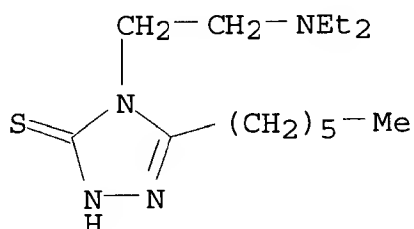


IT 400767-55-7 400767-70-6

(Ag salt DTR (diffusion transfer reversal) processing soln. for offset lithog. printing plate to improve ink-reception, reduce greasing, and improve running stability)

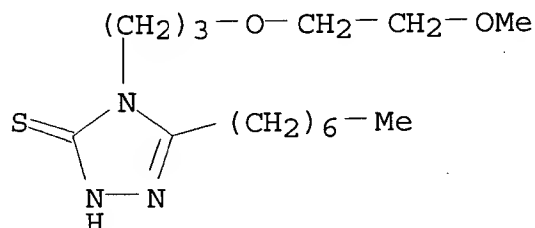
RN 400767-55-7 HCA

CN 3H-1,2,4-Triazole-3-thione, 4-[2-(diethylamino)ethyl]-5-hexyl-2,4-dihydro- (9CI) (CA INDEX NAME)



RN 400767-70-6 HCA

CN 3H-1,2,4-Triazole-3-thione, 5-heptyl-2,4-dihydro-4-[3-(2-methoxyethoxy)propyl]- (9CI) (CA INDEX NAME)



IC ICM G03F007-07

ICS G03F007-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

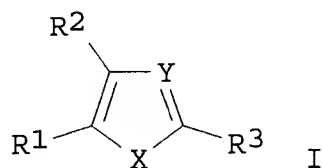
ST offset lithog printing plate silver

salt DTR processing soln; diffusion transfer reversal processing

- soln offset lithog printing plate
- IT **Lithographic plates**  
 (offset; Ag salt DTR (diffusion transfer reversal) processing soln. for offset lithog. printing plate to improve ink-reception, reduce greasing, and improve running stability)
- IT 400767-33-1P 400767-51-3P **400767-57-9P** 400767-65-9P  
 400767-72-8P  
 (Ag salt DTR (diffusion transfer reversal) processing soln. for offset lithog. printing plate to improve ink-reception, reduce greasing, and improve running stability)
- IT 400767-35-3 400767-37-5 400767-40-0 400767-43-3 400767-46-6  
 400767-48-8 400767-53-5 **400767-55-7** 400767-59-1  
 400767-62-6 400767-68-2 **400767-70-6** 400767-74-0  
 (Ag salt DTR (diffusion transfer reversal) processing soln. for offset lithog. printing plate to improve ink-reception, reduce greasing, and improve running stability)
- IT 75-15-0, Carbon disulfide, reactions 80-48-8, Methyl p-toluenesulfonate 111-25-1, 1-Bromohexane 111-83-1, 1-Bromooctane 556-61-6, Methylisothiocyanate 2365-48-2, Methyl thioglycolate 6304-39-8, Caprylic hydrazide 7803-57-8, Hydrazine monohydrate 32813-50-6 36810-90-9, 3-Picolylisothiocyanate 211124-34-4  
 (prepn. of compd. for Ag salt DTR (diffusion transfer reversal) processing soln. for offset lithog. printing plate to improve ink-reception, reduce greasing, and improve running stability)

L78 ANSWER 6 OF 45 HCA COPYRIGHT 2003 ACS  
 136:201973 Water-thinned **jet printing inks**  
 and **jet printing** method. Noro, Masaki (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002060658 A2 20020226, 38 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-245124 20000811.

GI



AB The inks and color ink sets thereof, which are capable of giving images with high quality, fastness, and water resistance, contain oil-sol. dyes and I (X = NR<sub>4</sub>, O, S; Y = CR<sub>5</sub>, N; R<sub>1</sub>-R<sub>5</sub> = H, substituent; R<sub>1</sub> and R<sub>2</sub>, R<sub>2</sub> and R<sub>5</sub>, R<sub>3</sub> and R<sub>5</sub>, R<sub>3</sub> and R<sub>4</sub>, R<sub>1</sub> and R<sub>4</sub> may form rings). The oil-sol. dyes are dissolved in high-boiling



solvents and dispersed in aq. media of the inks.

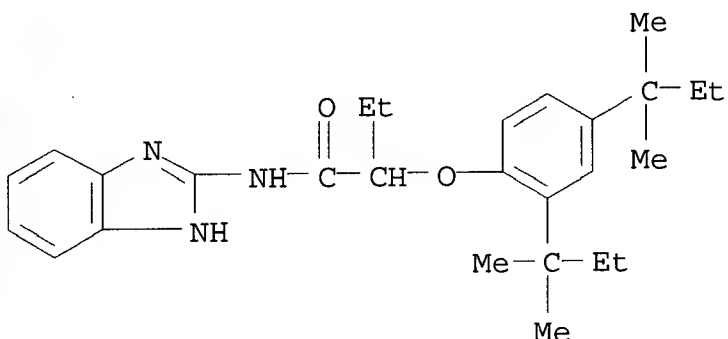
IT 401600-94-0

(water-thinned **jet printing inks**

contg. water-sol. dyes with good water resistance)

RN 401600-94-0 HCA

CN Butanamide, N-1H-benzimidazol-2-yl-2-[2,4-bis(1,1-dimethylpropyl)phenoxy]- (9CI) (CA INDEX NAME)



IC ICM C09D011-00

ICS B41J002-01; B41M005-00; C09B055-00

CC 42-12 (Coatings, Inks, and Related Products)

ST water resistance **jet printing ink**; oil

sol dye water thinned ink; color ink set oil sol dye

IT **Inks**

(**jet-printing**, water-thinned; water-thinned

**jet printing inks** contg. water-sol.

dyes with good water resistance)

IT **Dyes**

(oil-sol.; water-thinned **jet printing**

**inks** contg. water-sol. dyes with good water resistance)

IT 527-72-0, 2-Thiophenecarboxylic acid 2349-58-8 70806-79-0

358342-91-3 358638-61-6 379265-84-6 401600-88-2 401600-89-3

401600-90-6 401600-91-7 401600-92-8 401600-93-9

**401600-94-0** 401600-95-1 401600-96-2 401600-97-3

401600-98-4

(water-thinned **jet printing inks**

contg. water-sol. dyes with good water resistance)

L78 ANSWER 7 OF 45 HCA COPYRIGHT 2003 ACS

136:201972 Water-thinned **jet printing inks**

and **jet printing** method. Noro, Masaki (Fuji

Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002060657

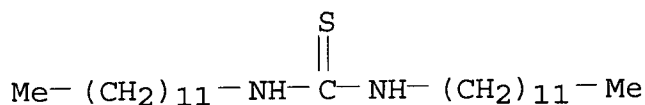
A2 20020226, 33 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP

2000-245102 20000811.

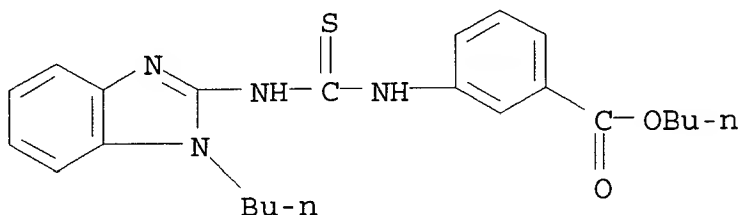
AB The inks and color ink sets thereof, which are capable of giving images with high quality, fastness, and water resistance, contain oil-sol. dyes and R1R2NC(:S)NR3R4 (R1-R4 = H, alkyl, aryl, heterocyclic, alkylcarbonyl, arylcarbonyl, alkylsulfonyl, arylsulfonyl; R1 and R2, R3 and R4, R1/R2 and R3/R4 may form rings),

such as C12H25NHC(:S)NHC12H25. The oil-sol. dyes are dissolved in high-boiling solvents and dispersed in aq. media of the inks.

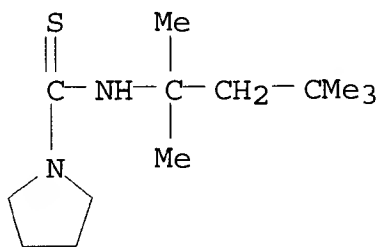
IT 7505-51-3 401591-68-2 401591-70-6  
 (water-thinned **jet printing inks**  
 contg. water-sol. dyes with good water resistance)  
 RN 7505-51-3 HCA  
 CN Thiourea, N,N'-didodecyl- (9CI) (CA INDEX NAME)



RN 401591-68-2 HCA  
 CN Benzoic acid, 3-[[[(1-butyl-1H-benzimidazol-2-yl)amino]thioxomethyl]amino]-, butyl ester (9CI) (CA INDEX NAME)



RN 401591-70-6 HCA  
 CN 1-Pyrrolidinecarbothioamide, N-(1,1,3,3-tetramethylbutyl)- (9CI)  
 (CA INDEX NAME)



IC ICM C09D011-00  
 ICS B41J002-01; B41M005-00; C09B055-00  
 CC 42-12 (Coatings, Inks, and Related Products)  
 ST water thinned **jet printing ink**  
 resistance; oil sol dye water thinned ink; color ink set oil sol dye  
 IT **Inks**  
 (jet-printing, water-thinned; water-thinned  
**jet printing inks** contg. water-sol.  
 dyes with good water resistance)  
 IT **Dyes**  
 (oil-sol.; water-thinned **jet printing**  
**inks** contg. water-sol. dyes with good water resistance)

IT 7505-51-3 21257-64-7 30826-83-6 35542-99-5  
 51112-68-6 70806-79-0 358342-91-3 379265-84-6 401591-65-9  
 401591-66-0 401591-67-1 401591-68-2 401591-69-3  
 401591-70-6 401591-71-7 401591-72-8

(water-thinned **jet printing inks**  
 contg. water-sol. dyes with good water resistance)

L78 ANSWER 8 OF 45 HCA COPYRIGHT 2003 ACS

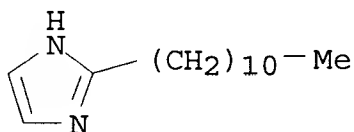
136:38973 Phase-change inks containing benzoyl benzamides. Malhotra, Shadi L.; Goodbrand, H. Bruce (Xerox Corporation, USA). U.S. US 6328793 B1 20011211, 14 pp. (English). CODEN: USXXAM. APPLICATION: US 2000-632190 20000803.

AB Disclosed is an ink compn. comprising (a) a benzoyl benzamide compd.; (b) a viscosity-modifying benzoyl-group-contg. compd.; (c) a colorant; and (d) an optional cond. enhancing agent.

IT 16731-68-3, 2-Undecyl imidazole 23328-87-2,  
 2-Heptadecyl imidazole  
 (cond.-enhancing agent; phase-change inks contg. benzoyl benzamides)

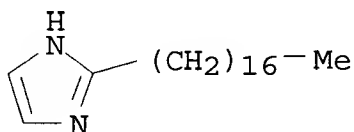
RN 16731-68-3 HCA

CN 1H-Imidazole, 2-undecyl- (9CI) (CA INDEX NAME)



RN 23328-87-2 HCA

CN 1H-Imidazole, 2-heptadecyl- (9CI) (CA INDEX NAME)



IC ICM C09D011-00

NCL 106031430

CC 42-12 (Coatings, Inks, and Related Products)

IT **Inks**

(hot-melt, **jet-printing**; phase-change inks  
 contg. benzoyl benzamides)

IT 288-32-4, Imidazole, uses 530-62-1, 1,1'-Carbonyl diimidazole  
 822-36-6, 4-Methyl imidazole 931-36-2, 2-Ethyl-4-methylimidazole  
 1072-62-4, 2-Ethyl imidazole 1138-15-4 2466-76-4,  
 1-Acetylimidazole 4238-71-5, 1-Benzylimidazole 6160-65-2,  
 1,1'-Thiocarbonyl diimidazole 7189-69-7, 1,1'-Sulfonyl diimidazole  
 16731-68-3, 2-Undecyl imidazole 18637-83-7,  
 1,1'-Oxalyldiimidazole 23328-87-2, 2-Heptadecyl imidazole  
 32673-41-9, 4-(Hydroxymethyl)imidazole hydrochloride 36947-68-9,  
 2-Isopropyl imidazole 50257-39-1 50257-40-4 50995-95-4,

2-Propyl imidazole 80964-44-9, 1,5-Dicyclohexyl imidazole  
89128-08-5  
(cond.-enhancing agent; phase-change inks contg. benzoyl  
benzamides)

L78 ANSWER 9 OF 45 HCA COPYRIGHT 2003 ACS

136:21063 **Ink jet recording** composition

containing cycloamine compound. Naruse, Hideaki; Seto, Nobuo (Fuji  
Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2001342386  
A2 20011214, 33 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP  
2000-309682 20001010. PRIORITY: JP 2000-95490 20000330.

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

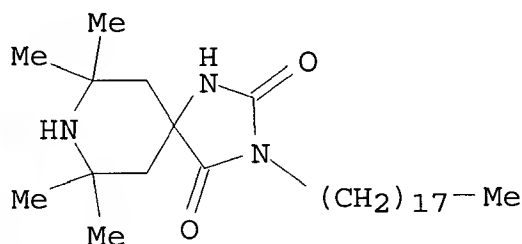
AB Title ink compn. having good picture quality, water resistance and  
image fixation comprises a dye dissolved in a high-b.p. solvent and  
dispersed in water, and a compd. I. Thus an ink made from dye II  
and compd. III showed good printing property, and water resistance.

IT **28093-25-6**

(ink jet recording compn. contg.  
cycloamine compd.)

RN 28093-25-6 HCA

CN 1,3,8-Triazaspiro[4.5]decane-2,4-dione, 7,7,9,9-tetramethyl-3-  
octadecyl- (8CI, 9CI) (CA INDEX NAME)



IC ICM C09D011-00

ICS B41J002-01; B41M005-00; C09B053-00; C09B055-00

CC 42-12 (Coatings, Inks, and Related Products)

ST **ink jet recording** compn cycloamine  
compd

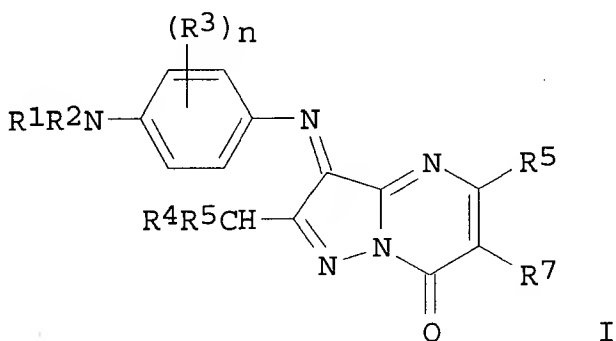
IT 2915-93-7 3225-26-1 7335-03-7 **28093-25-6** 43224-78-8  
70806-79-0 118150-13-3 118150-18-8 133467-41-1 150441-76-2  
346709-26-0 358342-91-3 358638-61-6 369595-79-9 378249-59-3  
379265-84-6 379265-85-7 379265-86-8 379265-87-9

(ink jet recording compn. contg.  
cycloamine compd.)

L78 ANSWER 10 OF 45 HCA COPYRIGHT 2003 ACS

136:12892 Material and method for thermal-transfer **recording, ink-jet printing ink**, color toner, and color filter containing pyrazolopyrimidin-7-one derivative chelate dye. Fukuda, Mitsuhiro; Sugino, Motoaki; Honda, Mari; Miura, Norio (Konica Co., Japan). Jpn. Kokai Tokkyo Koho JP 2001334755 A2 20011204, 23 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-154765 20000525.

GI



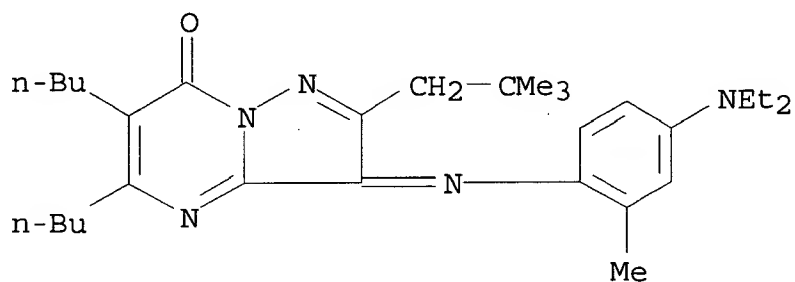
AB The thermal-transfer recording material contains a pyrazolopyrimidin-7-one deriv. dye I [R1, R2 = (substituted) alkyl; R3 = substituent; n = 0-4; R4 = cycloalkyl, secondary or tertiary alkyl, aryl, heterocycle; R5 = H, substituent; R6, R7 = substituent, linking each other to form a ring]. The thermal-transfer recording is carried out by laminating a I-contg. dye-donating layer, which is applied on a support, on a dye receptor layer, which may contain metal ion-contg. compds. and is applied on another support, followed by imagewise heating the laminate to form an image preferably by reaction of the ion-contg. compd. with I. The **ink-jet printing ink**, color toner, and color filter contain a metal-chelate dye formed by reaction of I with metal ion-contg. compds. The chelate dye gives light-resistant colors with good color reprodn.

IT 377079-65-7P

(thermal-transfer **printing sheet, jet-printing ink**, color toner, and color filter using pyrazolopyrimidin-7-one chelate dye)

RN 377079-65-7 HCA

CN Pyrazolo[1,5-a]pyrimidin-7(3H)-one, 5,6-dibutyl-3-[[4-(diethylamino)-2-methylphenyl]imino]-2-(2,2-dimethylpropyl)- (9CI) (CA INDEX NAME)

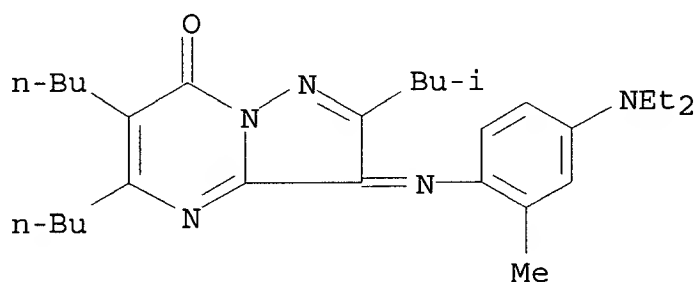


IT 377079-66-8 377079-67-9 377079-68-0  
377079-69-1 377079-70-4

(thermal-transfer **printing** sheet, **jet-printing ink**, color toner, and color filter  
using pyrazolopyrimidin-7-one chelate dye)

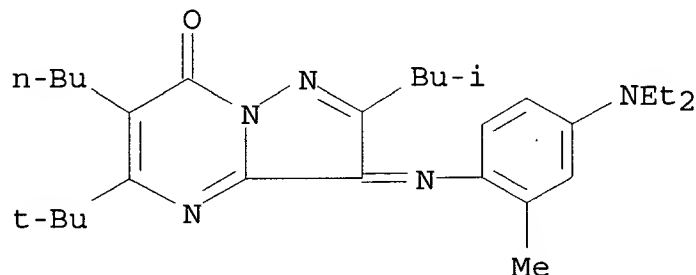
RN 377079-66-8 HCA

CN Pyrazolo[1,5-a]pyrimidin-7(3H)-one, 5,6-dibutyl-3-[[4-(diethylamino)-2-methylphenyl]imino]-2-(2-methylpropyl)- (9CI) (CA INDEX NAME)



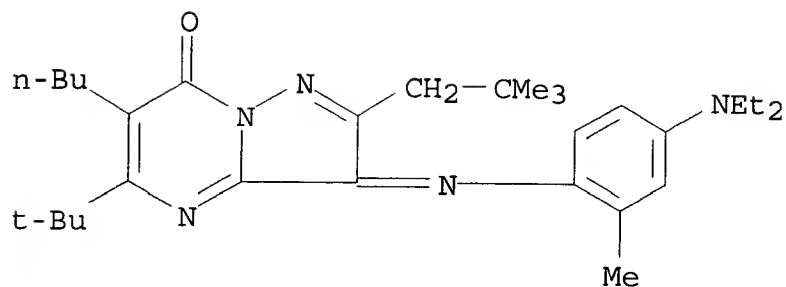
RN 377079-67-9 HCA

CN Pyrazolo[1,5-a]pyrimidin-7(3H)-one, 6-butyl-3-[[4-(diethylamino)-2-methylphenyl]imino]-5-(1,1-dimethylethyl)-2-(2-methylpropyl)- (9CI) (CA INDEX NAME)



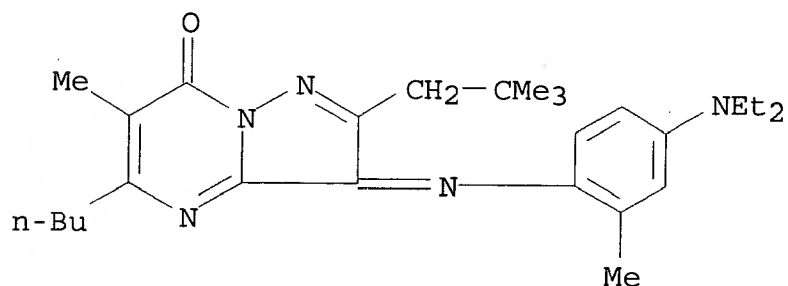
RN 377079-68-0 HCA

CN Pyrazolo[1,5-a]pyrimidin-7(3H)-one, 6-butyl-3-[[4-(diethylamino)-2-methylphenyl]imino]-5-(1,1-dimethylethyl)-2-(2,2-dimethylpropyl)- (9CI) (CA INDEX NAME)



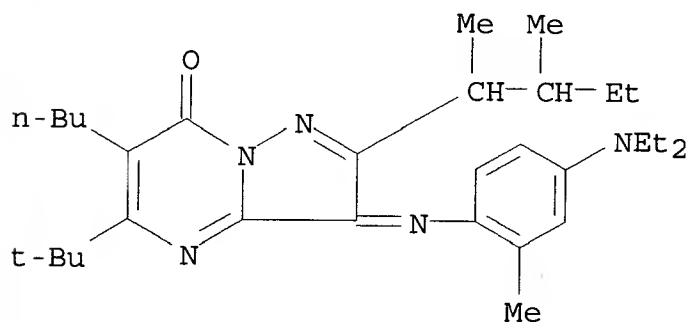
RN 377079-69-1 HCA

CN Pyrazolo[1,5-a]pyrimidin-7(3H)-one, 5-butyl-3-[[4-(diethylamino)-2-methylphenyl]imino]-2-(2,2-dimethylpropyl)-6-methyl- (9CI) (CA INDEX NAME)



RN 377079-70-4 HCA

CN Pyrazolo[1,5-a]pyrimidin-7(3H)-one, 6-butyl-3-[[4-(diethylamino)-2-methylphenyl]imino]-2-(1,2-dimethylbutyl)-5-(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



IC ICM B41M005-38

ICS B41M005-00; C09B055-00; C09D011-00; G02B005-20; G03G009-09

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 42

ST thermal transfer recording cyan dye pyrazolo pyrimidinone;  
ink jet printing pyrazolopyrimidinone

metal chelate dye; color toner filter pyrazolopyrimidinone metal chelate dye

IT **Inks**

(**jet-printing**; thermal-transfer **printing** sheet, **jet-printing ink**, color toner, and color filter using pyrazolopyrimidin-7-one chelate dye)

IT Thermal-transfer printing materials  
(sheets; thermal-transfer **printing** sheet, **jet-printing ink**, color toner, and color filter using pyrazolopyrimidin-7-one chelate dye)

IT Color electrophotographic toners

Optical filters

Thermal-transfer printing

(thermal-transfer **printing** sheet, **jet-printing ink**, color toner, and color filter using pyrazolopyrimidin-7-one chelate dye)

IT **377079-65-7P**

(thermal-transfer **printing** sheet, **jet-printing ink**, color toner, and color filter using pyrazolopyrimidin-7-one chelate dye)

IT 161407-47-2 **377079-66-8 377079-67-9**

**377079-68-0 377079-69-1 377079-70-4**

377079-71-5 377079-72-6 377079-73-7 377079-74-8 377079-75-9  
377079-76-0

(thermal-transfer **printing** sheet, **jet-printing ink**, color toner, and color filter using pyrazolopyrimidin-7-one chelate dye)

IT 54749-07-4 59951-04-1 377079-77-1

(thermal-transfer **printing** sheet, **jet-printing ink**, color toner, and color filter using pyrazolopyrimidin-7-one chelate dye)

L78 ANSWER 11 OF 45 HCA COPYRIGHT 2003 ACS

135:228331 Phase change acoustic ink compositions. Malhotra, Shadi L.  
(Xerox Corporation, USA). U.S. US 6288141 B1 20010911, 11 pp.  
(English). CODEN: USXXAM. APPLICATION: US 2000-542904 20000403.

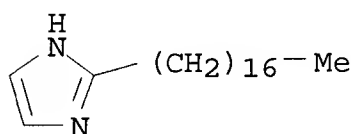
AB An ink compn. comprises (1) a polymeric carbamate compd., (2) an org. monomer carbamate, (3) a conductive compd., (4) a lightfastness compd., and (5) a colorant. The ink has a cond. .apprx.6-8 log(pico-.OMEGA./cm) at 150.degree..

IT **23328-87-2**, 2-Heptadecylimidazole

(conductor; phase change acoustic printing ink compns. contg.)

RN 23328-87-2 HCA

CN 1H-Imidazole, 2-heptadecyl- (9CI) (CA INDEX NAME)



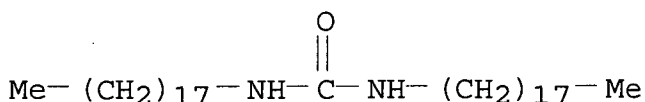


IC ICM C09D011-10  
ICS C08L079-00; C08K005-205  
NCL 523160000  
CC 42-12 (Coatings, Inks, and Related Products)  
IT **Inks**  
(**jet-printing**; phase change acoustic printing  
ink compns. for lightfast waterfast images on various papers)  
IT 1518-58-7 20624-25-3 21124-33-4, Diethyldithiocarbamic acid  
ammonium salt **23328-87-2**, 2-Heptadecylimidazole  
32673-41-9, 4-(Hydroxymethyl)imidazole hydrochloride  
(conductor; phase change acoustic printing ink compns. contg.)

L78 ANSWER 12 OF 45 HCA COPYRIGHT 2003 ACS  
134:164641 Conductive inks containing sulfonate salts. Malhotra, Shadi  
L.; Wong, Raymond W.; Breton, Marcel P. (Xerox Corporation, USA).  
U.S. US 6187083 B1 20010213, 14 pp. (English). CODEN: USXXAM.  
APPLICATION: US 1999-401249 19990923.

AB Disclosed is an ink compn. comprising (a) an ink vehicle which is  
selected from (i) 1,3-dialkyl ureas, (ii) N,N'-ethylene  
bisalkylamides, (iii) N-[4-chloro-3-[4,5-dihydro-5-oxo-1-(2,4,6-  
trichlorophenyl)-1H-pyrazol-3-yl amino] phenyl]-2-(1-octadecenyl)  
succinimide, (iv) 1,3-diamino-5,6-bis(octyloxy) isoindoline, (v)  
N,N-di-Me alkylamine N-oxides, (vi) alkyl amides, or (vii) mixts.  
thereof, the ink vehicle having a m.p. 60-155.degree., (b) a  
viscosity modifier which is an amide having a m.p. of  
60-155.degree., (c) a conductive sulfonate salt having a m.p. of  
60-155.degree., (d) a colorant, (e) an optional antioxidant, and (f)  
an optional UV absorber.

IT **4051-66-5**, 1,3-Dioctadecyl urea  
(vehicle; conductive inks contg. sulfonate salts)  
RN 4051-66-5 HCA  
CN Urea, N,N'-dioctadecyl- (9CI) (CA INDEX NAME)

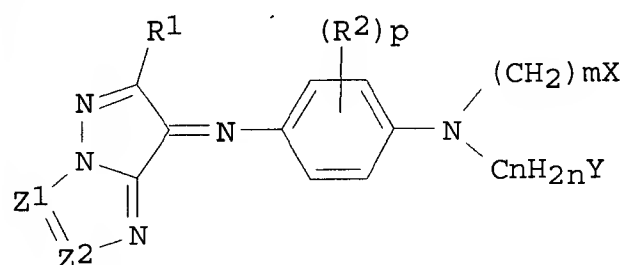


IC ICM C09D011-00  
NCL 106031290  
CC 42-12 (Coatings, Inks, and Related Products)  
IT **Inks**  
(**jet-printing**; conductive inks  
contg. sulfonate salts)  
IT 60-35-5, Acetamide, uses 79-05-0, Propionamide 110-30-5,  
N,N'-Ethylene bisstearamide 110-31-6, N,N'-Ethylene bisoleamide  
112-84-5, Erucamide 124-26-5, Octadecanamide 628-02-4,  
Hexanamide 1643-20-5, N,N-Dimethyl dodecyl amine N-oxide  
2536-13-2 2605-78-9, N,N-Dimethyl octylamine N-oxide  
**4051-66-5**, 1,3-Dioctadecyl urea 15178-71-9 15290-93-4  
55697-65-9 324761-01-5  
(vehicle; conductive inks contg. sulfonate salts)

L78 ANSWER 13 OF 45 HCA COPYRIGHT 2003 ACS

133:239369 Azomethine magenta dyes and oily magenta inks containing them. Yamakawa, Katsuyoshi; Motoki, Masuji; Asanuma, Naoki; Suzuki, Ryo; Sato, Tadahisa; Mikoshiba, Hisashi (Fuji Photo Film Co., Ltd., Japan). Eur. Pat. Appl. EP 1035172 A2 20000913, 23 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 2000-104167 20000229. PRIORITY: JP 1999-66722 19990312.

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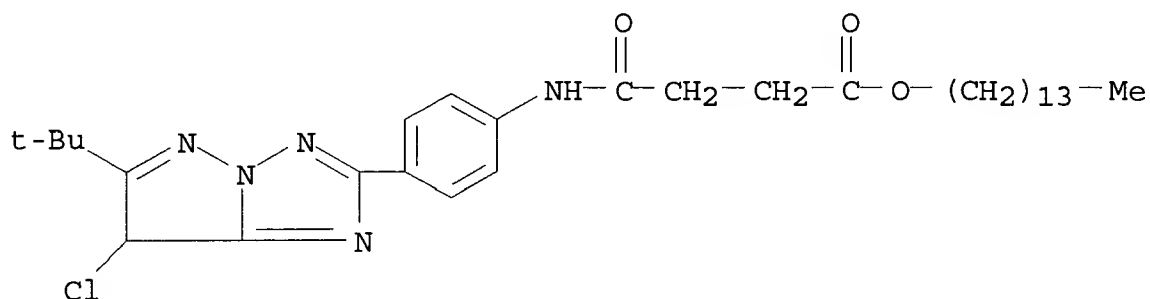
AB The azomethine dyes (I; R1 = C1-16-alkyl; R2 = halogen, C1-20-alkyl or -alkoxy, C2-20-amido or -alkoxycarbonylamino; X = cyano, C2-19-alkoxycarbonyl, C1-18-alkylsufonyl or -alkylsulfamoyl, C6-26-arylsufonyl or -arylsulfamoyl, sulfamoyl; Y = H, halogen, hydroxy, C1-20-alkoxy, C6-20-aryloxy, C2-20-acyloxy; m = 1-4; n = 1-18; p = 0-4; Z1:Z2 = substituted N:CH, CH:N, CH:CH) are oil-sol. magenta dyes having excellent color reprod. and color stability for **jet-printing inks**. In an example, 6-tert-butyl-7-chloro-2-[4-(3-(tetradecyloxycarbonyl)propanoylamino)phenyl]pyrazolo[1,5-b][1,2,4]triazole was condensed with 4-amino-N-butyl-N-(2-cyanoethyl)aniline to give a magenta azomethine dye with good soly. in EtOAc.

IT 292833-43-3

(starting material; prodn. of azomethine magenta dyes for oily **jet-printing inks**)

RN 292833-43-3 HCA

CN Butanoic acid, 4-[[4-[7-chloro-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]-4-oxo-, tetradecyl ester (9CI)  
(CA INDEX NAME)

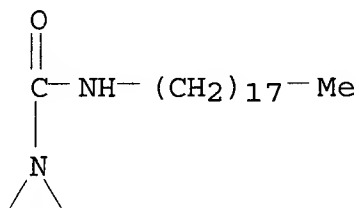


- IC ICM C09B055-00  
ICS C09D011-00
- CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)  
Section cross-reference(s): 42
- ST azomethine magenta dye prodn **jet ink**
- IT Azo dyes  
(azomethine magenta dyes for oily **jet-printing inks**)
- IT **Inks**  
(**jet-printing**; azomethine magenta dyes for oily **jet-printing inks**)
- IT 292833-36-4P 292833-37-5P  
(dye; azomethine magenta dyes for oily **jet-printing inks**)
- IT 292833-38-6 292833-39-7 292833-40-0 292833-41-1 292833-42-2  
(dye; azomethine magenta dyes for oily **jet-printing inks**)
- IT 292833-43-3 292833-44-4 292833-45-5  
(starting material; prodn. of azomethine magenta dyes for oily **jet-printing inks**)
- L78 ANSWER 14 OF 45 HCA COPYRIGHT 2003 ACS  
132:153630 **Ink-jet-printable** leathers or leather substitutes and their surface preparation. Kusaki, Kazuo (Kanebo, Ltd., Japan; Kanebo Fiber Glass Co., Ltd.). Jpn. Kokai Tokkyo Koho JP 2000045188 A2 20000215, 5 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-209064 19980724.
- AB The leathers and leather substitutes have a surface which has been impregnated with a mixt. of water repellents and binders, then coated with a layer contg. cationic substances and binders for improving printability. Thus, spraying an aq. soln. contg. 20 g/L Asahiguard AG 710 (F-contg. water repellent) and 20 g/L Rikidain AW 2560 (acrylic binder) on a sheep skin to 50 g/m2 pickup wt., drying, spraying an aq. soln. contg. 5 g/L Danfix 505RE (cationic compd.) and N 8-120X (cationic urethane resin) to 40 g/m2 pickup wt. and drying gave a sheep skin with good **ink jet printability**.
- IT 3891-29-0, Octex EM  
(water repellent; **ink-jet-printable**)

leathers or leather substitutes and surface prepn.)

RN 3891-29-0 HCA

CN 1-Aziridinecarboxamide, N-octadecyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



IC ICM D06P003-32

ICS D06P005-00; D06P005-22

CC 45-2 (Industrial Organic Chemicals, Leather, Fats, and Waxes)  
Section cross-reference(s): 38, 42

ST water repellent coating leather **ink jet printability**; fluoro water repellent coating leather

IT Polyurethanes, uses  
(coating binders; **ink-jet-printable**  
leathers or leather substitutes and surface prepn.)

IT **Ink-jet printing**  
Leather  
Leather substitutes  
Water-resistant materials  
(**ink-jet-printable** leathers or  
leather substitutes and surface prepn.)

IT Coating materials  
(water-resistant; **ink-jet-printable**  
leathers or leather substitutes and surface prepn.)

IT 89089-97-4, Danfix 505RE  
(cationic agent; **ink-jet-printable**  
leathers or leather substitutes and surface prepn.)

IT 219641-23-3, NS-120X 257874-85-4, Rikidain AW 2560  
(coating binders; **ink-jet-printable**  
leathers or leather substitutes and surface prepn.)

IT **3891-29-0**, Octex EM 42610-70-8, Asahiguard AG 710  
(water repellent; **ink-jet-printable**  
leathers or leather substitutes and surface prepn.)

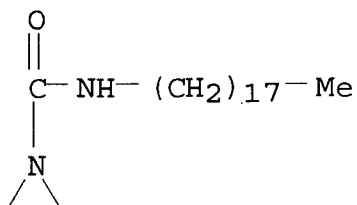
L78 ANSWER 15 OF 45 HCA COPYRIGHT 2003 ACS

131:323791 **Ink-jet printing** method for  
polyamide textiles. Kakunami, Masaki; Kamata, Kimiko; Kawashita,  
Hideo; Takigawa, Susumu (Taoka Chemical Co., Ltd., Japan). Jpn.  
Kokai Tokkyo Koho JP 11302985 A2 19991102 Heisei, 7 pp. (Japanese).  
CODEN: JKXXAF. APPLICATION: JP 1998-124278 19980416.

AB The method for **ink-jet printing** of  
polyamide textiles by using acid dyes or reactive dyes comprises  
pretreatment of the textiles with a compn. contg. ink retention  
agent, wetting agent, pH adjusting agent, redn. inhibitor,

penetrating agent or bleeding preventers; **ink-jet printing** the textiles; followed by fixation, washing and drying. The pretreatment compn. contains 0.01-10.0% penetrating agent (e.g., polyethylene glycol nonylphenyl ether) or bleeding preventers (e.g., N-aziridinyl-N'-stearyl urea).

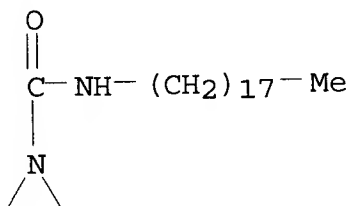
IT 3891-29-0  
 (bleeding preventers; **ink-jet printing** of polyamide textiles)  
 RN 3891-29-0 HCA  
 CN 1-Aziridinecarboxamide, N-octadecyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



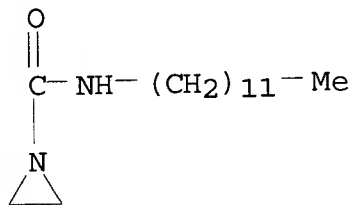
IC ICM D06P005-00  
 ICS D06P005-00; D06P003-24  
 CC 40-6 (Textiles and Fibers)  
 ST **ink jet printing** textile penetrating agent; bleeding preventer **ink jet printing** textile  
 IT Polyoxyalkylenes, uses  
 (ethers, penetrating agent; **ink-jet printing** of polyamide textiles)  
 IT Polyamide fibers, processes  
 (fabrics; **ink-jet printing** of polyamide textiles)  
 IT Textile **printing**  
 Textile **printing**  
 (**ink-jet**; **ink-jet printing** of polyamide textiles)  
 IT **Ink-jet printing**  
**Ink-jet printing**  
 (textile; **ink-jet printing** of polyamide textiles)  
 IT 3891-29-0  
 (bleeding preventers; **ink-jet printing** of polyamide textiles)  
 IT 9002-92-0, Polyethylene glycol lauryl ether 9004-98-2,  
 Polyethylene glycol oleyl ether 9016-45-9, Polyethylene glycol  
 nonylphenyl ether 9036-19-5, Polyethylene glycol octylphenyl ether  
 (penetrating agent; **ink-jet printing** of polyamide textiles)

polyester textiles. Kakunami, Masaki; Kamata, Kimiko; Kawashita, Hideo; Takigawa, Susumu (Taoka Chemical Co., Ltd., Japan; Meisei Shokai K. K.). Jpn. Kokai Tokkyo Koho JP 11302987 A2 19991102 Heisei, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-124280 19980416.

- AB The method for **ink-jet printing** of polyester textiles by using disperse dyes comprises pretreatment of the textiles with a compn. contg. ink retention agent, pH adjusting agent, deep-dyeing agent, redn. inhibitor, penetrating agent or bleeding preventers; **ink-jet printing** the textiles; followed by fixation, washing and drying. The pretreatment compn. contains 0.01-10.0% penetrating agent (e.g., polyethylene glycol monostearate) or bleeding preventers (e.g., N-aziridinyl-N'-stearyl urea).
- IT **3891-29-0**  
(bleeding preventers; **ink-jet printing** of polyester textiles)
- RN 3891-29-0 HCA
- CN 1-Aziridinecarboxamide, N-octadecyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

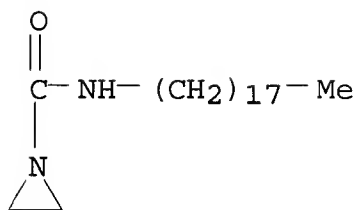


- IT **31044-25-4**, 1-Aziridinecarboxamide, N-dodecyl-  
(bleeding preventers; **ink-jet printing** of polyester textiles)
- RN 31044-25-4 HCA
- CN 1-Aziridinecarboxamide, N-dodecyl- (6CI, 9CI) (CA INDEX NAME)

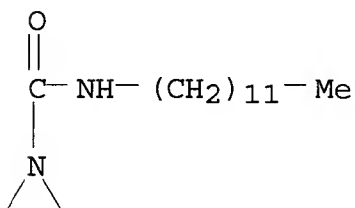


- IC ICM D06P005-00  
ICS D06P005-00; D06P003-54
- CC 40-6 (Textiles and Fibers)
- ST **ink jet printing** textile penetrating agent; bleeding preventer **ink jet printing** textile
- IT Polyoxyalkylenes, uses

- (esters, penetrating agent; **ink-jet printing** of polyester textiles)
- IT Fatty acids, uses  
(esters, with polyethylene glycol sorbitan ether, penetrating agent; **ink-jet printing** of polyester textiles)
- IT Polyester fibers, processes  
(fabrics; **ink-jet printing** of polyester textiles)
- IT Textile **printing**  
Textile **printing**  
(**ink-jet**; **ink-jet printing** of polyester textiles)
- IT **Ink-jet printing**  
**Ink-jet printing**  
(textile; **ink-jet printing** of polyester textiles)
- IT 3891-29-0  
(bleeding preventers; **ink-jet printing** of polyester textiles)
- IT 31044-25-4, 1-Aziridinecarboxamide, N-dodecyl-  
(bleeding preventers; **ink-jet printing** of polyester textiles)
- IT 9004-99-3, Polyethylene glycol monostearate 53694-15-8D,  
Polyethylene glycol sorbitol ether, fatty acid esters  
(penetrating agent; **ink-jet printing** of polyester textiles)
- L78 ANSWER 17 OF 45 HCA COPYRIGHT 2003 ACS  
131:323789 **Ink-jet printing** method for  
cellulosic textiles. Sunami, Masaki; Kamata, Kimiko; Kawashita,  
Hideo; Takigawa, Susumu (Taoka Chemical Co., Ltd., Japan; Meisei  
Shokai K. K.). Jpn. Kokai Tokkyo Koho JP 11302986 A2 19991102  
Heisei, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP  
1998-124279 19980416.
- AB The method for **ink-jet printing** of  
cellulosic textiles by using reactive dyes comprises pretreatment of  
the textiles with a compn. contg. ink retention agent, wetting  
agent, fixation agent, redn. inhibitor, penetrating agent or  
bleeding preventers; **ink-jet printing**  
the textiles; followed by fixation, washing and drying. The  
pretreatment compn. contains 0.01-10.0% penetrating agent (e.g.,  
polyethylene glycol nonylphenyl ether) or bleeding preventers (e.g.,  
N-aziridinyl-N'-stearyl urea).
- IT 3891-29-0 31044-25-4, 1-Aziridinecarboxamide,  
N-dodecyl-  
(bleeding preventers; **ink-jet printing** of cellulosic fabrics)
- RN 3891-29-0 HCA  
CN 1-Aziridinecarboxamide, N-octadecyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX  
NAME)



RN 31044-25-4 HCA  
 CN 1-Aziridinecarboxamide, N-dodecyl- (6CI, 9CI) (CA INDEX NAME)



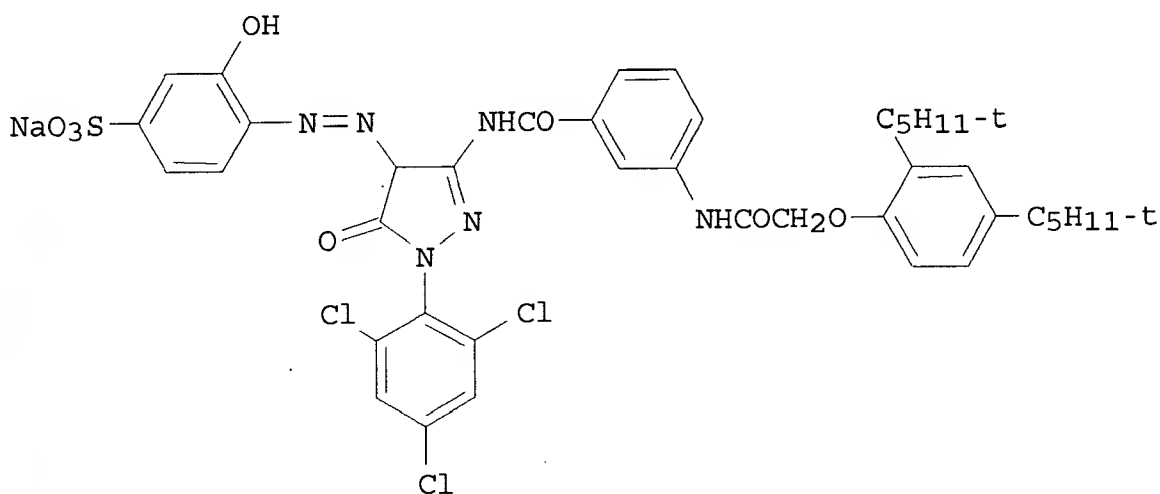
IC ICM D06P005-00  
 ICS D06P005-00; D06P003-66  
 CC 40-6 (Textiles and Fibers)  
 ST **ink jet printing** textile penetrating agent; bleeding preventer **ink jet printing** textile  
 IT Textiles  
     (cellulosic; **ink-jet printing** of cellulosic fabrics)  
 IT Polyoxyalkylenes, uses  
     (ethers, penetrating agent; **ink-jet printing** of cellulosic fabrics)  
 IT Textile **printing**  
     Textile **printing**  
     (**ink-jet**; **ink-jet printing** of cellulosic fabrics)  
 IT **Ink-jet printing**  
     **Ink-jet printing**  
     (textile; **ink-jet printing** of cellulosic fabrics)  
 IT 3891-29-0 31044-25-4, 1-Aziridinecarboxamide, N-dodecyl-  
     (bleeding preventers; **ink-jet printing** of cellulosic fabrics)  
 IT 9004-98-2, Polyethylene glycol oleyl ether 9016-45-9, Polyethylene glycol nonylphenyl ether  
     (penetrating agent; **ink-jet printing** of cellulosic fabrics)

L78 ANSWER 18 OF 45 HCA COPYRIGHT 2003 ACS  
 129:317722 Anticlogging water-thinned **ink-jet**



**inks.** Ooya, Hidenobu (Konica Co., Japan). Jpn. Kokai  
Tokkyo Koho JP 10259334 A2 19980929 Heisei, 31 pp. (Japanese).  
CODEN: JKXXAF. APPLICATION: JP 1997-67992 19970321.

GI



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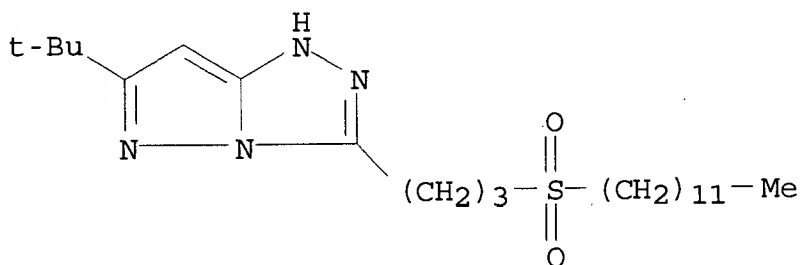
AB The inks contain azo dyes bearing .gtoreq.1 sulfonic acid or salt group, characterized in that the aq. soln. of the dyes has a viscosity of .gtoreq.2 cP at 20.degree. with an absorbance of 1000 at max. absorption wavelength. Thus, an ink contg. I, diethylene glycol, and water gave prints showing good light and water resistance.

IT 139478-01-6

(anticlogging light-resistant water-thinned **ink-jet inks**)

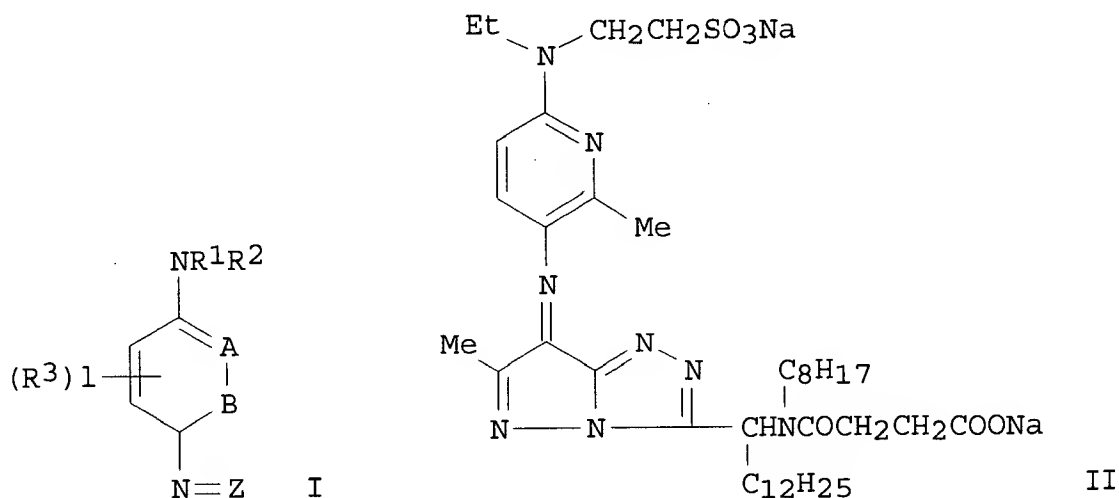
RN 139478-01-6 HCA

CN 1H-Pyrazolo[5,1-c]-1,2,4-triazole, 6-(1,1-dimethylethyl)-3-[3-(dodecylsulfonyl)propyl]- (9CI) (CA INDEX NAME)



IC ICM C09D011-00

ICS B41M005-00; C09B029-12; C09B029-20; C09B029-46  
CC 42-12 (Coatings, Inks, and Related Products)  
Section cross-reference(s): 41  
ST water thinned anticlogging **jet ink**; azo dye  
**jet printing ink**; light resistant  
**jet printing ink**; sulfonate contg azo  
dye ink  
IT Azo dyes  
(anticlogging light-resistant water-thinned **ink-jet inks**)  
IT **Inks**  
(**jet-printing**, water-thinned; anticlogging  
light-resistant water-thinned **ink-jet inks**)  
IT 95057-08-2P 214620-10-7P 214620-32-3P  
(anticlogging light-resistant water-thinned **ink-jet inks**)  
IT 214620-00-5 214620-01-6 214620-03-8 214620-04-9 214620-05-0  
214620-06-1 214620-07-2 214620-08-3 214620-09-4 214620-12-9  
214620-13-0 214620-14-1 214620-15-2 214620-16-3 214620-17-4  
214620-18-5 214620-19-6 214620-21-0 214620-22-1 214620-23-2  
214620-24-3 214620-25-4 214620-26-5 214620-27-6 214620-28-7  
214620-29-8 214836-27-8 214836-29-0 214836-31-4  
(anticlogging light-resistant water-thinned **ink-jet inks**)  
IT 31188-91-7 74339-92-7 **139478-01-6** 214620-31-2  
(anticlogging light-resistant water-thinned **ink-jet inks**)  
L78 ANSWER 19 OF 45 HCA COPYRIGHT 2003 ACS  
129:162950 Anticlogging light- and water-resistant **ink-jet inks**. Oya, Hidenobu (Konica Co., Japan).  
Jpn. Kokai Tokkyo Koho JP 10183038 A2 19980707 Heisei, 30 pp.  
(Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-347621 19961226.  
GI



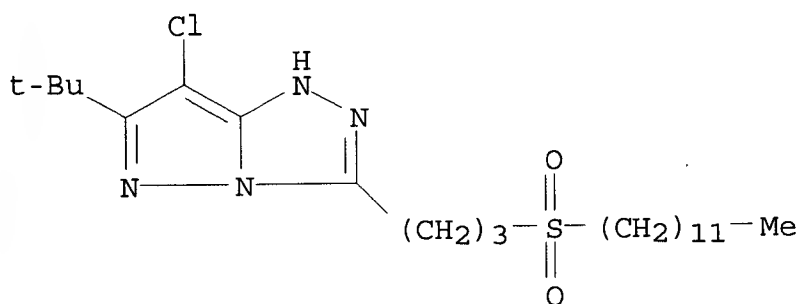
AB The inks comprise dyes I ( $R_1, R_2$  = alkyl, aryl;  $R_3$  = H, substituent; either A or B = N, and the other = CR<sub>4</sub>;  $R_4$  = H, aryl; Z = structure capable of coupling with oxidized color developing agent bearing p-phenylenediamine unit) contg. 1 sulfonic acid group and 10 ballast group. Thus, dye II was prepd. and used in the formulation of **ink-jet inks**.

IT 124351-77-5

(anticlogging light and water-resistant **ink-jet inks**)

RN 124351-77-5 HCA

CN 1H-Pyrazolo[5,1-c]-1,2,4-triazole, 7-chloro-6-(1,1-dimethylethyl)-3-[3-(dodecylsulfonyl)propyl]- (9CI) (CA INDEX NAME)



IC ICM C09D011-00

ICS B41J002-01; C09B055-00

CC 42-12 (Coatings, Inks, and Related Products)

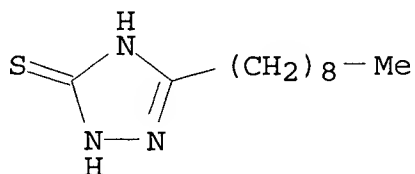
Section cross-reference(s): 27, 28, 41, 74

ST water resistant **jet printing ink** dye;

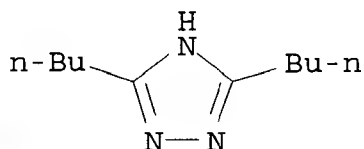
color developing agent coupling dye; anticlogging **jet printing ink** dye

IT Dyes

- (anticlogging light- and water-resistant **ink-jet inks**)
- IT **Inks**  
(**jet-printing**, anticlogging; light- and water-resistant **ink-jet inks**)
- IT 93951-12-3 **124351-77-5** 176665-65-9 211059-88-0  
211059-89-1  
(anticlogging light and water-resistant **ink-jet inks**)
- IT 211059-63-1P 211059-72-2P 211059-76-6P 211059-81-3P  
211059-90-4P  
(anticlogging light- and water-resistant **ink-jet inks**)
- IT 211059-50-6 211059-51-7 211059-52-8 211059-53-9 211059-54-0  
211059-55-1 211059-56-2 211059-57-3 211059-58-4 211059-59-5  
211059-60-8 211059-61-9 211059-62-0 211059-64-2 211059-65-3  
211059-66-4 211059-67-5 211059-68-6 211059-69-7 211059-70-0  
211059-71-1 211059-73-3 211059-74-4 211059-75-5 211059-77-7  
211059-78-8 211059-79-9 211059-80-2 211059-82-4 211059-83-5  
211059-84-6 211059-85-7 211059-86-8 211059-87-9  
(anticlogging light- and water-resistant **ink-jet inks**)
- L78 ANSWER 20 OF 45 HCA COPYRIGHT 2003 ACS
- 129:60598 Manufacture of **lithographic printing plate**. Kondo, Toshio; Araki, Yutaka; Fujioka, Hajime; Oko, Makiko (Mitsubishi Paper Mills, Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 10133381 A2 19980522 Heisei, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-194011 19970718. PRIORITY: JP 1996-208307 19960807; JP 1996-235305 19960905.
- AB The process comprises exposure of a **lithog.** printing material having development nuclei between an Al support and a Ag halide emulsion layer, followed by development, water-rinsing, and finishing, wherein the water-rinsing uses a soln. contg. mercapto- or thion-contg. compd. The finishing uses a soln. contg. protein-decomp. enzymes. The water-rinsing prevented the soln. to become opaque.
- IT **7271-50-3**  
(water-rinsing step in manuf. of **lithog. printing plate**)
- RN 7271-50-3 HCA
- CN 3H-1,2,4-Triazole-3-thione, 1,2-dihydro-5-nonyl- (9CI) (CA INDEX NAME)



- IC ICM G03F007-07  
ICS B41C001-10; B41N003-08; G03F007-00; G03F007-32
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- ST **lithog printing plate** water rinsing
- IT **Lithographic plates**  
(water-rinsing step in manuf. of **lithog. printing plate**)
- IT 7271-50-3 9002-07-7, Trypsin 9014-01-1, Bioprase AL15  
66473-10-7  
(water-rinsing step in manuf. of **lithog. printing plate**)
- L78 ANSWER 21 OF 45 HCA COPYRIGHT 2003 ACS  
128:328795 Method for processing **lithographic printing plate**. Baba, Hideaki; Oko, Makiko; Kondo, Toshiro (Mitsubishi Paper Mills Limited, Japan). Ger. Offen. DE 19745776 A1 19980430, 14 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1997-19745776 19971016. PRIORITY: JP 1996-279104 19961022.
- AB The title method processes the **lithog. printing plate** in the presence of a monocyclic azole compd. (deriv.) with no mercapto group. The monocyclic compd. may be selected from imidazole (deriv.) or triazole (deriv.).
- IT 140126-77-8  
(**lithog. printing plate** processed in the presence of)
- RN 140126-77-8 HCA
- CN 1H-1,2,4-Triazole, 3,5-dibutyl- (9CI) (CA INDEX NAME)



- IC ICM G03F007-32  
ICS G03F007-06; C07D227-02
- ICA C07D249-08; C07D233-54; C07D257-04; C07D285-135
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- ST **lithog printing plate** monocyclic azole
- IT **Lithographic plates**  
(method for processing **lithog. printing plate**)
- IT 61-82-5, 1H-1,2,4-Triazol-3-amine 288-88-0, 1H-1,2,4-Triazole 827-43-0 1455-77-2, 1H-1,2,4-Triazole-3,5-diamine 3357-42-4 4923-01-7 140126-77-8  
(**lithog. printing plate** processed in the presence of)

128:168844 **Ink-jet recording fluids for**  
 water- and lightfast printing and manufacture thereof. Hazama,  
 Seiji; Fujigamori, Tsutomu; Ueno, Yoshimutsu; Toyota, Ichiro; Uraki,  
 Hisashi (Toyo Ink Mfg. Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP  
 10017802 A2 19980120 Heisei, 11 pp. (Japanese). CODEN: JKXXAF.  
 APPLICATION: JP 1996-177592 19960708.

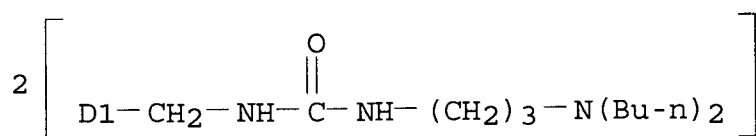
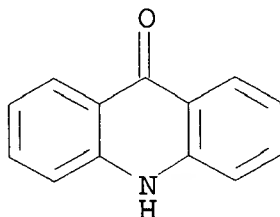
AB The title fluids contain pigments, surfactants, acids, and pigment  
 dispersants P(XYZNR1R2)<sub>n</sub> [P = org. dye residue, heterocyclic, arom.  
 polycyclic group; X = divalent linking group from 2-15 of S, C, N, O  
 and H; Y = direct bond, N(R), O; R = H, C1-18 alkyl, ZNR1R2; Z =  
 C1-6 alkylene; R1, R2 = (un)substituted heterocyclic group contg. N,  
 O or S; n = 1-3]. A conc. was prepd. from Lionol Blue FG-7351 24,  
 C.I. Pigment Blue 15 having 1.5 SO<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>NMe<sub>2</sub> substituents 0.7,  
 citric acid 0.1, Emulgen A-90 4.8, glycerin 5, and water 65.4 parts,  
 and ink was prepd. from the conc. 10.5, Tocryl PC-52 acrylic resin  
 5.2, glycerin 10, sodium Omadine 0.2, and water 74.1 parts.

IT 202821-58-7

(ink-jet recording fluids for  
 water- and lightfast printing and manuf. thereof)

RN 202821-58-7 HCA

CN Urea, N,N'-[(9,10-dihydro-9-oxoacridinediyl)bis(methylene)]bis[N'-  
 [3-(dibutylamino)propyl]- (9CI) (CA INDEX NAME)



IC ICM C09D011-00

ICS C09D011-02

CC 42-12 (Coatings, Inks, and Related Products)

ST **jet printing ink** water light

resistant; pigment dispersant **jet printing**  
**ink**

IT Dispersing agents

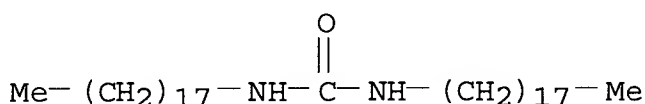
Pigments, nonbiological

(ink-jet recording fluids for  
 water- and lightfast printing and manuf. thereof)

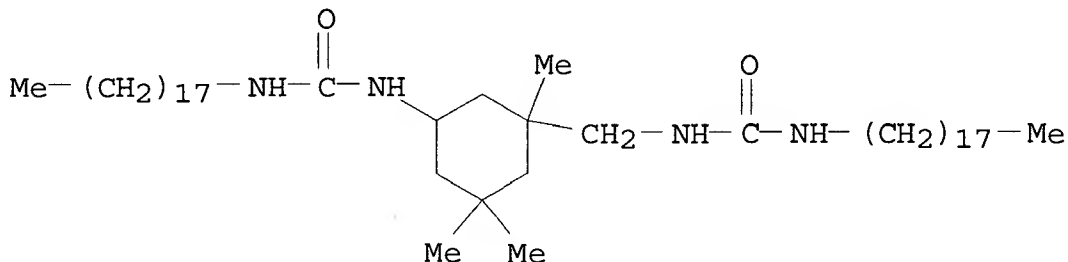
IT Acids, uses

(ink-jet recording fluids for  
 water- and lightfast printing and manuf. thereof)

- IT Carbon black, uses  
(**ink-jet recording** fluids for  
water- and lightfast printing and manuf. thereof)
- IT **Inks**  
(**jet-printing**, water-thinned; **ink-**  
**jet recording** fluids for water- and lightfast  
printing and manuf. thereof)
- IT Surfactants  
(nonionic; **ink-jet recording** fluids  
for water- and lightfast printing and manuf. thereof)
- IT 64-19-7, Acetic acid, uses 77-92-9, Citric acid, uses 147-14-8D,  
C.I. Pigment Blue 15, (dimethylamino)ethylaminosulfonyl-substituted  
9004-98-2, Emulgen 420 9016-45-9, Emulgen 913 69599-43-5,  
Emulgen A 90 125490-94-0 150463-29-9 167710-91-0 167711-16-2  
167711-24-2 168034-99-9 168035-00-5 168074-67-7 202821-55-4  
202821-56-5 202821-57-6 **202821-58-7** 202821-59-8  
202821-60-1  
(**ink-jet recording** fluids for  
water- and lightfast printing and manuf. thereof)
- IT 147-14-8, Lionol Blue FG 7351 980-26-7, Hostaperm Pink E  
5045-40-9, Irgazin Yellow 2GLTE 6358-31-2, Hansa Brilliant Yellow  
5GX-02 215247-95-3, Hostaperm Violet RL Special  
(**ink-jet recording** fluids for  
water- and lightfast printing and manuf. thereof)
- L78 ANSWER 23 OF 45 HCA COPYRIGHT 2003 ACS  
128:142142 Phase change ink formulation using urea and urethane  
isocyanate derived resins as carriers. Bui, Loc V.; King, Clifford  
R.; Banning, Jeffery H.; Titterington, Donald R. (Tektronix, Inc.,  
USA). Eur. Pat. Appl. EP 816449 A1 19980107, 22 pp. DESIGNATED  
STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,  
MC, PT, IE, FI. (English). CODEN: EPXXDW. APPLICATION: EP  
1997-304735 19970630. PRIORITY: US 1996-671998 19960628; US  
1996-672609 19960628; US 1996-672617 19960628; US 1996-672815  
19960628; US 1996-672816 19960628; US 1996-678386 19960628.
- AB Resins and waxes made by reacting selected nucleophiles, including  
alcs. and/or amines, with an isocyanate are disclosed. The order of  
addn. of the isocyanate and the different nucleophiles can tailor  
the distribution of diurethane, mixed urethane/urea, and/or di-urea  
mols. in the final resin product. The isocyanate-derived resin and  
wax materials are useful as ingredients as phase change ink carrier  
comps. used to make phase change **ink jet**  
**inks**. Thus, such a wax was obtained from the reaction of  
1.351 mol hydroabietyl alc. with 0.676 mol isophorone diisocyanate.
- IT **4051-66-5P**, Octadecyl diisocyanate urethane with octadecyl  
alcohol **202002-71-9P**, Isophorone diisocyanate diurea with  
octadecylamine  
(manuf. of phase change **ink** binders for **jet**  
**printing**)
- RN 4051-66-5 HCA  
CN Urea, N,N'-dioctadecyl- (9CI) (CA INDEX NAME)



RN 202002-71-9 HCA  
 CN Urea, N-octadecyl-N'-[[1,3,3-trimethyl-5-  
 [[(octadecylamino)carbonyl]amino]cyclohexyl]methyl]- (9CI) (CA  
 INDEX NAME)



IC ICM C09D011-00  
 ICS C08G018-28  
 CC 42-12 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 74  
 ST diurethane wax hot melt binder ink; phase change **ink**  
**jet** wax resin; urea isocyanate hot melt binder ink; urethane  
 hot melt binder ink  
 IT **Inks**  
 (jet-printing; manuf. of phase change  
**ink** binders for **jet printing**)  
 IT Urethanes  
 (manuf. of phase change **ink** binders for **jet**  
**printing**)  
 IT Inks  
 (printing; manuf. of phase change **ink** binders for  
**jet printing**)  
 IT 13393-93-6, Tetrahydroabietyl alcohol  
 (Abitol E; reactant for manuf. of phase change **ink**  
 binders for **jet printing**)  
 IT 112-92-5DP, Octadecyl alcohol, urethane with IPDI-octadecylamine  
 adduct 124-30-1DP, Octadecylamine, urea with IPDI-octadecyl alc.  
 adduct **4051-66-5P**, Octadecyl diisocyanate urethane with  
 octadecyl alcohol 4098-71-9DP, urethane with hydroabietyl and  
 octadecyl alc. and urea with octadecylamine 13393-93-6DP,  
 Tetrahydroabietyl alcohol, urethane with IPDI-octadecylamine adduct  
 67401-45-0P, Octadecyl diisocyanate urea with octadecylamine  
 197177-51-8P, Isophorone diisocyanate diurethane with octadecyl  
 alcohol 202002-70-8P, Isophorone diisocyanate, diurethane with  
 4-octylphenol ethoxylate **202002-71-9P**, Isophorone  
 diisocyanate diurea with octadecylamine 202257-24-7P, Isophorone  
 diisocyanate, diurethane with hydroabietyl alcohol  
 (manuf. of phase change **ink** binders for **jet**



printing)  
 IT 112-92-5, Octadecyl alcohol 112-96-9, Mondur O 124-30-1,  
 Octadecylamine 4098-71-9 9002-93-1, Triton X 15 202149-37-9,  
 Desmodur I

(reactant for manuf. of phase change ink binders for  
 jet printing)

L78 ANSWER 24 OF 45 HCA COPYRIGHT 2003 ACS

128:142141 Phase change ink formulation using isocyanate-derived urea  
 and urethane resins or waxes. Bui, Loc V.; King, Clifford R.;  
 Banning, Jeffery H.; Titterington, Donald R. (Tektronix, Inc., USA).  
 Eur. Pat. Appl. EP 816448 A1 19980107, 22 pp. DESIGNATED STATES:  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, FI. (English). CODEN: EPXXDW. APPLICATION: EP 1997-304731  
 19970630. PRIORITY: US 1996-671998 19960628; US 1996-672609  
 19960628; US 1996-672617 19960628; US 1996-672815 19960628; US  
 1996-672816 19960628; US 1996-678386 19960628.

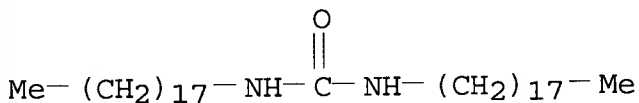
AB Resins and waxes made by reacting selected nucleophiles, including  
 alcs. and/or amines, with an isocyanate are disclosed. The order of  
 addn. of the isocyanate and the different nucleophiles can tailor  
 the distribution of diurethane, mixed urethane/urea, and/or di-urea  
 mols. in the final resin product. The isocyanate-derived resin and  
 wax materials are useful as ingredients as phase change ink carrier  
 compns. contg. ordinary tackifiers and monoamides, and used to make  
 phase change ink jet inks. Thus, such  
 a wax was obtained from the reaction of 1.351 mol hydroabietyl alc.  
 with 0.676 mol isophorone diisocyanate.

IT 4051-66-5P, Octadecyl isocyanate urea with octadecylamine  
 202002-71-9P, Isophorone diisocyanate diurea with  
 octadecylamine

(manuf. of phase change ink binders for jet  
 printing)

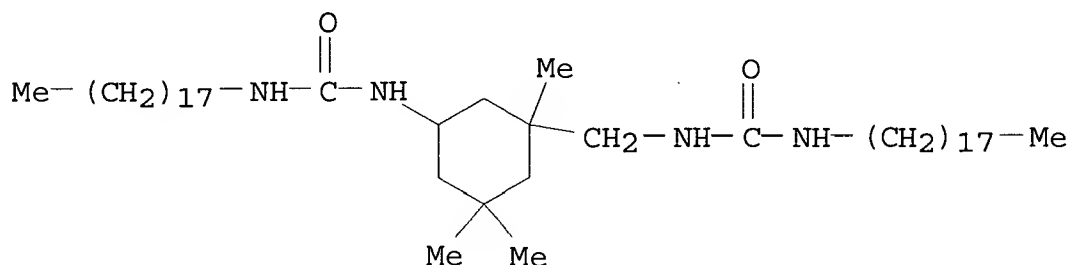
RN 4051-66-5 HCA

CN Urea, N,N'-dioctadecyl- (9CI) (CA INDEX NAME)



RN 202002-71-9 HCA

CN Urea, N-octadecyl-N'-[[1,3,3-trimethyl-5-  
 [(octadecylamino)carbonyl]amino]cyclohexyl]methyl]- (9CI) (CA  
 INDEX NAME)



- IC ICM C09D011-00  
ICS C08G018-28
- CC 42-12 (Coatings, Inks, and Related Products)  
Section cross-reference(s): 74
- ST diurethane wax hot melt binder ink; phase change **ink**  
**jet** wax resin; urea isocyanate hot melt binder ink; urethane  
hot melt binder ink
- IT **Inks**  
(**jet-printing**; manuf. of phase change  
**ink** binders for **jet printing**)
- IT Urethanes  
(manuf. of phase change **ink** binders for **jet**  
**printing**)
- IT 13393-93-6, Tetrahydroabietyl alcohol  
(Abitol E; reactant for manuf. of phase change **ink**  
binders for **jet printing**)
- IT 112-92-5DP, Octadecyl alcohol, urethane with IPDI-octadecylamine  
adduct 124-30-1DP, Octadecylamine, urea with IPDI-octadecyl alc.  
adduct **4051-66-5P**, Octadecyl isocyanate urea with  
octadecylamine 4098-71-9DP, urethane with tetrahydroabietyl alc.  
and urea with octadecylamine 13393-93-6DP, Tetrahydroabietyl  
alcohol, urethane with IPDI-octadecylamine adduct 67401-45-0P  
197177-51-8P, Isophorone diisocyanate diurethane with octadecyl  
alcohol 202002-70-8P, Isophorone diisocyanate, diurethane with  
4-octylphenol ethoxylate **202002-71-9P**, Isophorone  
diisocyanate diurea with octadecylamine 202257-24-7P, Isophorone  
diisocyanate, diurethane with tetrahydroabietyl alcohol  
(manuf. of phase change **ink** binders for **jet**  
**printing**)
- IT 112-92-5, Octadecyl alcohol 112-96-9, Mondur O 124-30-1,  
Octadecylamine 4098-71-9 9002-93-1, Triton X 15 202149-37-9,  
Desmodur I  
(reactant for manuf. of phase change **ink** binders for  
**jet printing**)

L78 ANSWER 25 OF 45 HCA COPYRIGHT 2003 ACS

128:142140 Phase change ink formulation using isocyanate-derived urea  
and urethane resins or waxes as carriers. Bui, Loc V.; King,  
Clifford R.; Banning, Jeffery H.; Titterington, Donald R.  
(Tektronix, Inc., USA). Eur. Pat. Appl. EP 816446 A1 19980107, 22  
pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT,

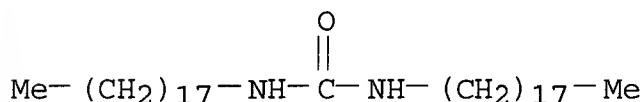
LI, LU, NL, SE, MC, PT, IE, FI. (English). CODEN: EPXXDW.  
APPLICATION: EP 1997-304727 19970630. PRIORITY: US 1996-671998  
19960628; US 1996-672609 19960628; US 1996-672617 19960628; US  
1996-672815 19960628; US 1996-672816 19960628; US 1996-678386  
19960628.

AB Resins and waxes made by reacting selected nucleophiles, including  
alcs. and/or amines, with an isocyanate are disclosed. The order of  
addn. of the isocyanate and the different nucleophiles can tailor  
the distribution of diurethane, mixed urethane/urea, and/or di-urea  
mols. in the final resin product. The isocyanate-derived resin and  
wax materials are useful as ingredients as phase change ink carrier  
comps. used to make phase change **ink jet**  
IT **inks**. Thus, such a wax was obtained from the reaction of  
1.351 mol hydroabietyl alc. with 0.676 mol isophorone diisocyanate.  
4051-66-5P, Octadecyl diisocyanate urea with octadecylamine  
202002-71-9P, Isophorone diisocyanate diurea with  
octadecylamine

(manuf. of phase change **ink** binders for **jet**  
**printing**)

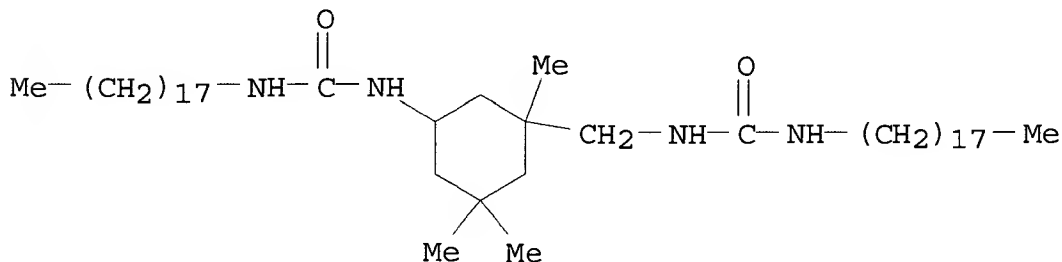
RN 4051-66-5 HCA

CN Urea, N,N'-dioctadecyl- (9CI) (CA INDEX NAME)



RN 202002-71-9 HCA

CN Urea, N-octadecyl-N'-[[1,3,3-trimethyl-5-  
[[[(octadecylamino)carbonyl]amino]cyclohexyl]methyl]- (9CI) (CA  
INDEX NAME).



IC ICM C09D011-00

ICS C08G018-28

CC 42-12 (Coatings, Inks, and Related Products)

Section cross-reference(s): 74

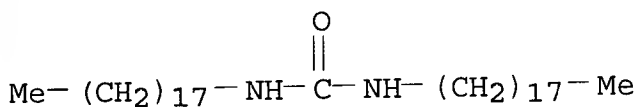
ST diurethane wax hot melt binder ink; phase change **ink**  
**jet** wax resin; urea isocyanate hot melt binder ink; urethane  
hot melt binder ink

IT **Inks**

(**jet-printing**; manuf. of phase change  
**ink** binders for **jet printing**)

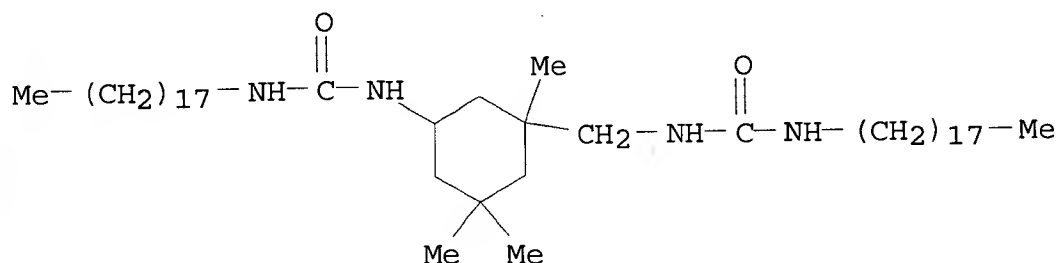
- IT Urethanes  
(manuf. of phase change **ink** binders for **jet printing**)
- IT 13393-93-6, Tetrahydroabietyl alcohol  
(Abitol E; reactant for manuf. of phase change **ink** binders for **jet printing**)
- IT 112-92-5DP, Octadecyl alcohol, urethane with IPDI-octadecylamine adduct 124-30-1DP, Octadecylamine, urea with IPDI-octadecyl alc. adduct **4051-66-5P**, Octadecyl diisocyanate urea with octadecylamine 4098-71-9DP, urethane with tetrahydroabietyl and octadecyl alc. and urea with octadecylamine 13393-93-6DP, Tetrahydroabietyl alcohol, urethane with IPDI-octadecylamine adduct 67401-45-0P, Octadecyl diisocyanate urethane with octadecyl alcohol 197177-51-8P, Isophorone diisocyanate diurethane with octadecyl alcohol 202002-70-8P, Isophorone diisocyanate, diurethane with octylphenol ethoxylate **202002-71-9P**, Isophorone diisocyanate diurea with octadecylamine 202257-24-7P, Isophorone diisocyanate, diurethane with tetrahydroabietyl alcohol  
(manuf. of phase change **ink** binders for **jet printing**)
- IT 112-92-5, Octadecyl alcohol 112-96-9, Mondur O 124-30-1, Octadecylamine 4098-71-9 9002-93-1, Triton X 15 202149-37-9, Desmodur I  
(reactant for manuf. of phase change **ink** binders for **jet printing**)
- L78 ANSWER 26 OF 45 HCA COPYRIGHT 2003 ACS
- 128:142139 Phase change ink formulation using isocyanate-derived urea and urethane resins or waxes as carriers. Bui, Loc V.; King, Clifford R.; Banning, Jeffery H.; Titterington, Donald R. (Tektronix, Inc., USA). Eur. Pat. Appl. EP 816445 A1 19980107, 22 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI. (English). CODEN: EPXXDW. APPLICATION: EP 1997-304701 19970630. PRIORITY: US 1996-672816 19960628; US 1996-671998 19960628; US 1996-672609 19960628; US 1996-672617 19960628; US 1996-672815 19960628; US 1996-678386 19960628.
- AB Resins and waxes made by reacting selected nucleophiles, including alcs. and/or amines, with an isocyanate are disclosed. The order of addn. of the isocyanate and the different nucleophiles can tailor the distribution of diurethane, mixed urethane/urea, and/or di-urea mols. in the final resin product. The isocyanate-derived resin and wax materials are useful as ingredients as phase change ink carrier compns. used to make phase change **ink jet inks**. Thus, such a wax was obtained from the reaction of 1.351 mol hydroabietyl alc. with 0.676 mol isophorone diisocyanate.
- IT **4051-66-5P**, Octadecyl diisocyanate urea with octadecylamine **202002-71-9P**, Isophorone diisocyanate diurea with octadecylamine  
(manuf. of phase change **ink** binders for **jet printing**)
- RN 4051-66-5 HCA

CN Urea, N,N'-dioctadecyl- (9CI) (CA INDEX NAME)



RN 202002-71-9 HCA

CN Urea, N-octadecyl-N'-[[1,3,3-trimethyl-5-  
[[[(octadecylamino)carbonyl]amino]cyclohexyl]methyl]- (9CI) (CA  
INDEX NAME)



IC ICM C09D011-00

ICS C08G018-28

CC 42-12 (Coatings, Inks, and Related Products)

Section cross-reference(s): 74

ST diurethane wax hot melt binder ink; phase change ink  
jet wax resin; urea isocyanate hot melt binder ink; urethane  
hot melt binder ink

IT Inks

(jet-printing; manuf. of phase change  
ink binders for jet printing)

IT Urethanes

Waxes

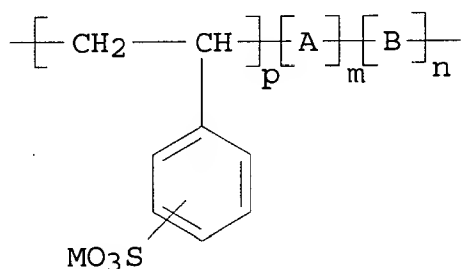
(manuf. of phase change ink binders for jet  
printing)

IT 13393-93-6, Tetrahydroabietyl alcohol

(Abitol E; reactant for manuf. of phase change ink  
binders for jet printing)

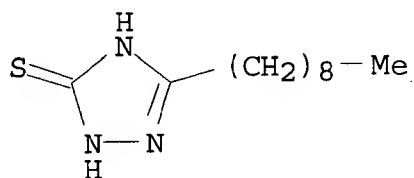
IT 112-92-5DP, Octadecyl alcohol, urethane with IPDI-octadecylamine  
adduct 124-30-1DP, Octadecylamine, urea with IPDI-octadecyl alc.  
adduct 4051-66-5P, Octadecyl diisocyanate urea with  
octadecylamine 4098-71-9DP, urethane with tetrahydroabietyl and  
octadecyl alc. and urea with octadecylamine 13393-93-6DP, urethane  
adduct with IPDI-octadecylamine adduct 67401-45-0P, Octadecyl  
diisocyanate urethane with octadecyl alcohol 197177-51-8P,  
Isophorone diisocyanate diurethane with octadecyl alcohol  
202002-70-8P, Isophorone diisocyanate, diurethane with octylphenol  
ethoxylate 202002-71-9P, Isophorone diisocyanate diurea  
with octadecylamine 202257-24-7P, Isophorone diisocyanate,  
diurethane with tetrahydroabietyl alcohol  
(manuf. of phase change ink binders for jet

- printing)**
- IT 112-92-5, Octadecyl alcohol 112-96-9, Mondur O 124-30-1,  
Octadecylamine 4098-71-9 9002-93-1, Triton X 15 202149-37-9,  
Desmodur I  
(reactant for manuf. of phase change **ink** binders for  
**jet printing**)
- L78 ANSWER 27 OF 45 HCA COPYRIGHT 2003 ACS  
128:28638 Method for surface treatment of **lithographic**  
**printing plate**. Kurokawa, Hiroyuki; Kondo,  
Toshiro; Araki, Yutaka (Mitsubishi Paper Mills Ltd., Japan). Ger.  
Offen. DE 19709393 A1 19971106, 21 pp. (German). CODEN: GWXXBX.  
APPLICATION: DE 1997-19709393 19970307. PRIORITY: JP 1996-50300  
19960307; JP 1996-50301 19960307; JP 1996-96328 19960418.
- GI

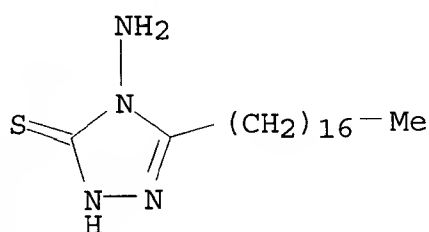


I

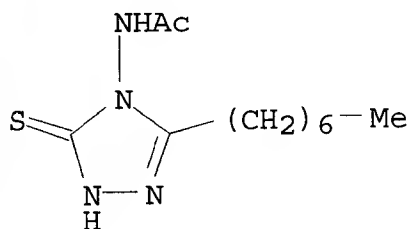
- AB The title method for the DTR **lithog. printing**  
**plate** is carried out with a surface treatment soln.  
comprised of a water-sol. compd. with a mercapto group or a thione  
group and a compd. I (A = vinyl monomer unit with carboxyl group; B  
= copolymerizable ethylenic unsatd. monomer unit; M = cation; p =  
30-90 mol.%; m = 10-50 mol.%; n = 0-50 mol.%). The surface  
treatment soln. is a neutralizing (or stabilizing) soln.
- IT 7271-50-3 23455-87-0, 3-Mercapto-4-amino-5-  
heptadecyl-1,2,4-triazole 32444-85-2 199450-06-1  
199450-07-2  
(neutralizing soln. for surface treatment of **lithog.**  
**printing plate** comprising)
- RN 7271-50-3 HCA  
CN 3H-1,2,4-Triazole-3-thione, 1,2-dihydro-5-nonyl- (9CI) (CA INDEX  
NAME)



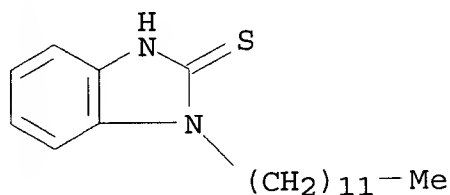
RN 23455-87-0 HCA  
 CN 3H-1,2,4-Triazole-3-thione, 4-amino-5-heptadecyl-2,4-dihydro- (9CI)  
 (CA INDEX NAME)



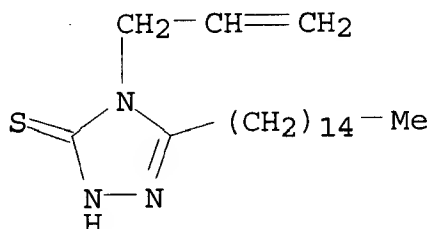
RN 32444-85-2 HCA  
 CN Acetamide, N-(3-heptyl-1,5-dihydro-5-thioxo-4H-1,2,4-triazol-4-yl)-  
 (9CI) (CA INDEX NAME)



RN 199450-06-1 HCA  
 CN 2H-Benzimidazole-2-thione, 1-dodecyl-1,3-dihydro- (9CI) (CA INDEX  
 NAME)



RN 199450-07-2 HCA  
 CN 3H-1,2,4-Triazole-3-thione, 2,4-dihydro-5-pentadecyl-4-(2-propenyl)-  
 (9CI) (CA INDEX NAME)

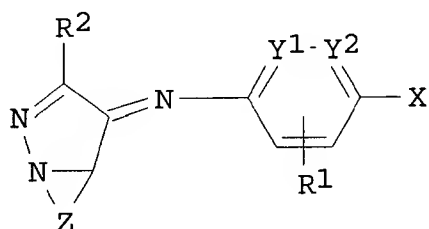


- IC ICM G03F007-40  
ICS B41C001-10; B41N003-08
- ICA G03F007-32
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- ST **lithog printing plate** surface  
neutralizer stabilizer
- IT Photography  
(diffusion-transfer; method for surface treatment of **lithog. printing plate**)
- IT **Lithographic plates**  
(method for surface treatment of **lithog. printing plate**)
- IT Polyoxyalkylenes, uses  
(neutralizing soln. for surface treatment of **lithog. printing plate** comprising)
- IT 86-93-1, 5-Mercapto-1-phenyl-tetrazole 107-10-8, Propylamine, uses 107-41-5, Hexylene glycol 141-43-5, uses 149-30-4, 2-Mercapto-benzothiazole 583-39-1, 2-Mercapto-benzimidazole 1155-51-7 2103-88-0, 2-Mercapto-4-phenylthiazole 2127-09-5, 2-Mercapto-5-nitropyridine 2382-96-9, 2-Mercaptobenz-oxazole 3004-42-0 4800-27-5 5585-19-3 6670-13-9 6857-34-7, 2-Mercapto-4-phenylimidazole **7271-50-3** 7558-80-7, Phosphoric acid monosodium salt 7664-38-2, Phosphoric acid, uses 9003-01-4 9003-11-6 9011-13-6, Maleic acid anhydride-styrene copolymer 9038-95-3 16407-34-4, 3-Ethylbenzothiazoline-2-thione 17705-32-7 21635-49-4 23269-10-5 **23455-87-0**, 3-Mercapto-4-amino-5-heptadecyl-1,2,4-triazole 25265-71-8, Dipropylene glycol 25322-69-4, Oxirane, methyl-, homopolymer 25549-84-2 25751-21-7, Acrylic acid-methacrylic acid copolymer 30369-73-4, 2-Amino-4-mercapto-6-benzyl-1,3,5-triazine 30886-16-9 32327-79-0 **32444-85-2** 32479-68-8, 1,3-Diethylbenzimidazoline-2-thione 37311-02-7, Oxirane, methyl-, polymer with oxirane, mono-octyl ether 39573-31-4, 1-Ethyl-2-mercapto-benzimidazole 66473-10-7 67173-98-2 67624-27-5 68043-64-1 89568-46-7 197392-28-2 199450-05-0 **199450-06-1** **199450-07-2**  
(neutralizing soln. for surface treatment of **lithog. printing plate** comprising)

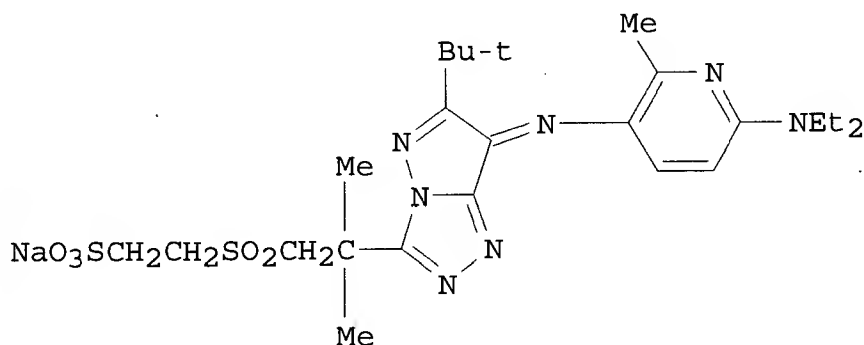


**recording inks.** Onodera, Akira; Ninomiya, Hidetaka; Ohya, Hidenobu; Ishibashi, Daisuke; Komamura, Tawara; Katoh, Katsunori; Tanaka, Tatsuo; Morimoto, Hitoshi (Konica Corporation, Japan). Eur. Pat. Appl. EP 769531 A1 19970423, 55 pp. DESIGNATED STATES: R: DE, FR, GB. (English). CODEN: EPXXDW. APPLICATION: EP 1996-307514 19961016. PRIORITY: JP 1995-267082 19951016; JP 1996-72287 19960327.

GI



I



II

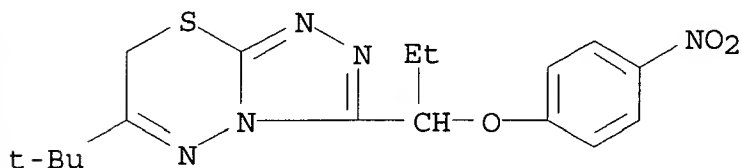
AB A recording method comprises the step of ejecting an **ink-jet recording ink** on a receptor using an **ink-jet printer**, the **ink** comprising a dye represented by the formula I [R1, R2 = H, halogen, NH2, org. group; X = OH, NR3R4; R3, R4 = H, hydrocarbyl, heterocyclyl, or R1R3 or R3R4 form a ring; Y1, Y2 = N, CR; R = H, alkyl, acylamino; Y1 or Y2 = N; Z completes an (un)substituted 5- or 6-membered ring, which may bear another condensed ring; R2 or a substituent on Z has Hammett .sigma.p -0.3 to +1.0]. Thus, II was prepd. in a 9-step synthesis from 6-methyl-2-pyridinamine and 5-tert-butyl-2-hydrazino-6H-1,3,4-thiadiazine. An ink with good color tone and storage stability was prepd. from a I 3, H(OCH2CH2)2OH 10, Bu(OCH2CH2)3OH 7, ProH 3, and H2O 77%.

IT 189686-92-8P 189686-93-9P

(prepn. of azomethine dyes for use in **ink-jet recording inks**)

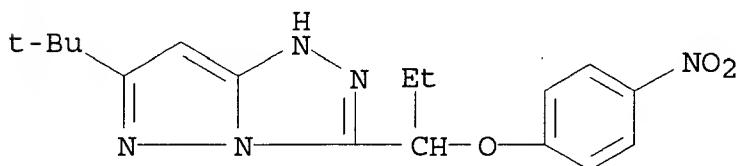
RN 189686-92-8 HCA

CN 7H-1,2,4-Triazolo[3,4-b][1,3,4]thiadiazine, 6-(1,1-dimethylethyl)-3-[1-(4-nitrophenoxy)propyl]- (9CI) (CA INDEX NAME)



RN 189686-93-9 HCA

CN 1H-Pyrazolo[5,1-c]-1,2,4-triazole, 6-(1,1-dimethylethyl)-3-[1-(4-nitrophenoxy)propyl]- (9CI) (CA INDEX NAME)

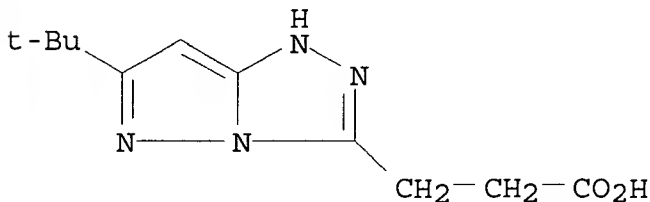


IT 189686-94-0

(prepn. of azomethine dyes for use in **ink-jet recording inks**)

RN 189686-94-0 HCA

CN 1H-Pyrazolo[5,1-c]-1,2,4-triazole-3-propanoic acid, 6-(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



IC ICM C09B055-00

ICS C09D011-00; C07D487-04

ICI C07D487-04, C07D249-00, C07D231-00; C07D487-04, C07D257-00, C07D231-00; C07D487-04, C07D235-00, C07D231-00

CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

Section cross-reference(s): 42

ST azomethine dye **jet printing ink**;

pyrazolotriazole azomethine dye; aminopyridine azomethine dye

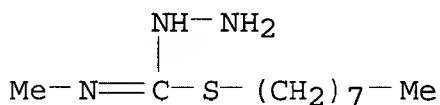
IT Dyes

(azomethine; azomethine dyes for use in **ink-jet recording inks**)

IT **Inks**

(**jet-printing**; azomethine dyes for use in **ink-jet recording inks**)

- IT 189686-82-6P 189686-83-7P 189686-84-8P 189686-85-9P  
 189686-86-0P 189686-87-1P 189686-88-2P  
 (azomethine dyes for use in **ink-jet recording inks**)
- IT 162207-97-8 162207-98-9 162208-00-6 162208-01-7 189686-98-4  
 189686-99-5 189687-00-1 189687-01-2 189687-02-3 189687-03-4  
 189687-04-5 189687-05-6 189687-06-7 189687-07-8 189687-08-9  
 189687-09-0 189687-10-3 189687-11-4 189687-12-5  
 (azomethine dyes for use in **ink-jet recording inks**)
- IT 28489-43-2P 39179-00-5P 161257-27-8P 166597-29-1P  
 189686-89-3P 189686-90-6P 189686-91-7P **189686-92-8P**  
**189686-93-9P** 189686-95-1P 189686-96-2P 189686-97-3P  
 (prepn. of azomethine dyes for use in **ink-jet recording inks**)
- IT 1824-81-3, 6-Methyl-2-pyridinamine 4263-52-9, Sodium  
 2-bromoethanesulfonate 4300-97-4, Chloropivaloyl chloride  
 120552-01-4 137786-05-1 162207-95-6 165593-20-4 168770-10-3  
**189686-94-0**  
 (prepn. of azomethine dyes for use in **ink-jet recording inks**)
- L78 ANSWER 29 OF 45 HCA COPYRIGHT 2003 ACS  
 125:208512 Isothiourea derivative-containing treating agent for offset  
**printing plate**. Furukawa, Akira; Kurokawa,  
 Hiroyuki (Mitsubishi Paper Mills Ltd, Japan). Jpn. Kokai Tokkyo  
 Koho JP 08175046 A2 19960709 Heisei, 5 pp. (Japanese). CODEN:  
 JKXXAF. APPLICATION: JP 1994-325964 19941227.
- AB The treating agent for offset **printing plate**  
 using ink-receptive imaged Ag contains R1SC(:NR2)NHR3 or  
 R6NHC(N:R5)SR4SC(:NR5)NHR6 (R1 = C1-30 alkyl, aralkyl; R2 = H,  
 amino; R3, R5 = alkyl, allyl, amino, amidino, dithiocarbamate; R4,  
 R6 = C1-30 alkylene, aralkylene). The treating agent improves ink  
 receptivity of **printing plates**.
- IT **181217-72-1**  
 (isothiourea deriv.-contg. treating agent for offset  
**printing plate**)
- RN 181217-72-1 HCA  
 CN Hydrazinecarboximidothioic acid, N-methyl-, octyl ester (9CI) (CA  
 INDEX NAME)



- IC ICM B41N003-08  
 ICS G03F007-00; G03F007-07
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and  
 Other Reprographic Processes)
- ST thiourea treating agent offset **printing plate**;  
 ink receptivity isothiourea treatment offset printing

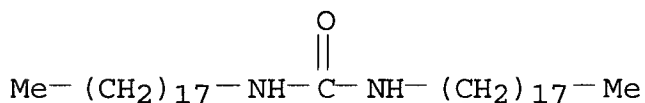
IT **Lithographic plates**(offset, isothiourea deriv.-contg. treating agent for offset  
**printing plate**)IT 4270-03-5 63498-30-6 179410-20-9 181217-68-5 181217-69-6  
181217-70-9 181217-71-0 **181217-72-1**(isothiourea deriv.-contg. treating agent for offset  
**printing plate**)

L78 ANSWER 30 OF 45 HCA COPYRIGHT 2003 ACS

125:171150 Oligourea vehicles for hot-melt **jet-****printing ink** compositions. Evans, PhilippaCatherine; Hall, Stephen Anthony; Ivory, Nicholas Eric (Coates  
Brothers Plc, UK). Brit. UK Pat. Appl. GB 2294939 A1 19960515, 10  
pp. (English). CODEN: BAXXDU. APPLICATION: GB 1994-22477  
19941108.AB Hot melt ink compn. comprises a colorant together with, as a  
vehicle, an oligourea, having a m.p. .gtoreq.65.degree., which is  
obtainable by reacting an aliph. or arom. mono- or diisocyanate with  
at least a stoichiometric amt. of (1) a primary or secondary  
monoamine component; or (2) a primary or secondary monoamine  
component followed by another different primary monoamine component;  
or (3) a primary or secondary monoamine component, followed by a  
diprimary diamine component followed by a primary or secondary  
monoamine component; or (4) a primary or secondary monoamine  
component, followed by an alc. component; the diprimary diamine  
component being used in an amt. of not more than 50% of the  
stoichiometric amt. of amine groups required to react with the  
isocyanate group(s) on the diisocyanate. Thus,  
trimethylhexamethylene diisocyanate was reacted with octadecylamine  
to give a diurea deriv. having ball and ring m.p. 105.degree.,  
relative viscosity 190 cp, and was clear and stable at elevated  
temps.IT **4051-66-5P 180466-18-6P 180640-96-4P**  
**180640-97-5P**(ink vehicle; manuf. of oligourea vehicles for hot-melt  
**jet-printing ink** compns.)

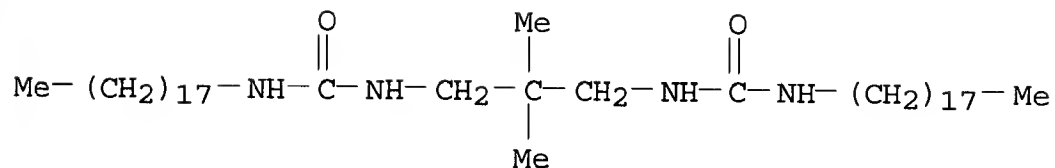
RN 4051-66-5 HCA

CN Urea, N,N'-dioctadecyl- (9CI) (CA INDEX NAME)



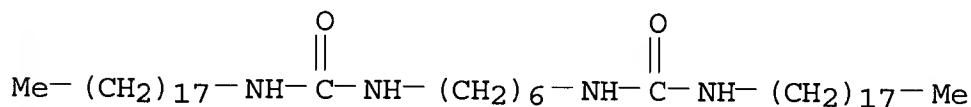
RN 180466-18-6 HCA

CN Urea, N,N'-(2,2-dimethyl-1,3-propanediyl)bis[N'-octadecyl- (9CI)  
(CA INDEX NAME)



RN 180640-96-4 HCA

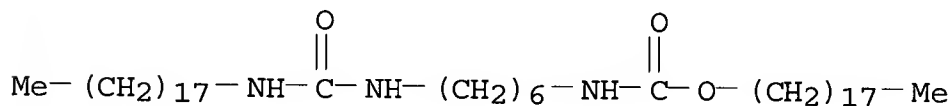
CN Urea, N,N'-(trimethyl-1,6-hexanediyl)bis[N'-octadecyl- (9CI) (CA INDEX NAME)



3 ( D1-Me )

RN 180640-97-5 HCA

CN Carbamic acid, (trimethyl-1,6-hexanediyl)bis-, dioctadecyl ester (9CI) (CA INDEX NAME)



3 ( D1-Me )

IC ICM C09D011-02

CC 42-12 (Coatings, Inks, and Related Products)

Section cross-reference(s): 23, 25

ST hot melt ink vehicle oligourea; isocyanate amine reaction ink vehicle manuf; **jet printing** hot melt ink vehicleIT **Inks**(jet-printing, hot-melt, manuf. of oligourea vehicles for hot-melt **jet-printing** ink compns.)

IT Amines, uses

(tallow alkyl, reaction products with trimethylhexamethylene diisocyanate, ink vehicle; manuf. of oligourea vehicles for hot-melt **jet-printing ink** compns.)IT 143-27-1DP, Hexadecylamine, reaction products with ditallowamine and trimethylhexamethylenediisocyanate **4051-66-5P**

28679-16-5DP, Trimethylhexamethylene diisocyanate, reaction products

with ditallowamine and hexadecylamine 180466-18-6P  
180640-96-4P 180640-97-5P

(ink vehicle; manuf. of oligourea vehicles for hot-melt  
**jet-printing ink** compns.)

- IT 112-92-5, Octadecanol 112-96-9, Octadecyl isocyanate 124-30-1,  
1-Octadecanamine 143-27-1, Hexadecylamine 7328-91-8  
28679-16-5, Trimethylhexamethylene diisocyanate  
(starting material; manuf. of oligourea vehicles for hot-melt  
**jet-printing ink** compns.)

L78 ANSWER 31 OF 45 HCA COPYRIGHT 2003 ACS

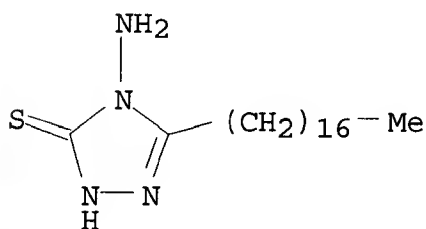
123:97993 Treating solution for **lithographic printing**  
**plate..** Kurokawa, Hiroyuki; Ibaraki, Kazuhiko; Urasaki,  
Jun; Yoshida, Akio (Mitsubishi Paper Mills, Ltd., Japan). Eur. Pat.  
Appl. EP 639798 A1 19950222, 9 pp. DESIGNATED STATES: R: DE, FR,  
GB. (English). CODEN: EPXXDW. APPLICATION: EP 1994-103054  
19940301. PRIORITY: JP 1993-205407 19930819.

AB A treating soln. for the surface of **lithog.**  
**printing plates** having Ag images used as  
ink-receptive portions which contains .gtoreq.1 compd. having  
mercapto group or thion group and an amine compd. The treating  
soln. may further contain hydrophilic colloid particles having an  
av. particle size of 0.1 .mu.m or less and an amino acid to inhibit  
stain of nonimage background portions. Satisfactory solubilization  
can be attained without the use of solvents and the treating soln.  
has improved stability.

IT 23455-87-0, 3-Mercapto-4-amino-5-heptadecyl-1,2,4-triazole  
(Treating soln. for **lithog. printing**  
**plate.**)

RN 23455-87-0 HCA

CN 3H-1,2,4-Triazole-3-thione, 4-amino-5-heptadecyl-2,4-dihydro- (9CI)  
(CA INDEX NAME)



IC ICM G03F007-07

ICS B41N003-08

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and  
Other Reprographic Processes)

ST treating soln **lithog printing plate**;  
mercapto thion amine treating soln

IT **Lithographic plates**  
(Treating soln. for **lithog. printing**  
**plate.**)

IT 6857-34-7, 2-Mercapto-4-phenylimidazole 23455-87-0,

3-Mercapto-4-amino-5-heptadecyl-1,2,4-triazole 30369-73-4,  
2-Amino-4-mercapto-6-benzyl-1,3,5-triazine 147382-79-4  
157366-94-4

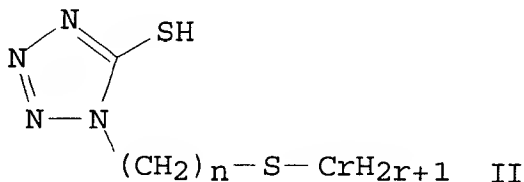
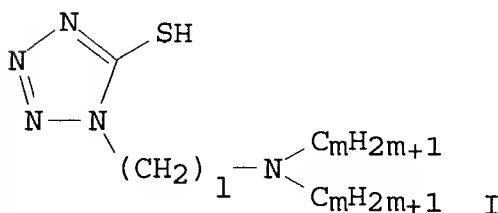
(Treating soln. for lithog. printing  
plate.)

IT 102-71-6, Triethanolamine, uses 107-10-8, Propylamine, uses  
110-89-4, Piperidine, uses 61413-47-6  
(solubilizing agent; Treating soln. for lithog.  
printing plate.)

L78 ANSWER 32 OF 45 HCA COPYRIGHT 2003 ACS

121:241855 Processing solutions for offset printing  
plates. Takada, Masakazu; Hashimoto, Takimi; Miura,  
Taketoshi (Mitsubishi Paper Mills Ltd, Japan). Jpn. Kokai Tokkyo  
Koho JP 06067436 A2 19940311 Heisei, 6 pp. (Japanese). CODEN:  
JKXXAF. APPLICATION: JP 1992-221822 19920820.

GI

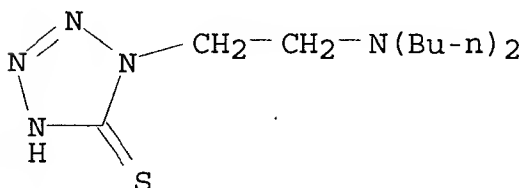


AB The title processing solns. contain either I [ $l = 1-3$ ;  $m = 3-5$ ] or  
II [ $n = 1-3$ ;  $r = 3-7$ ]. The processing soln. increases ink  
receivability of a Ag image.

IT 158520-74-2P  
(processing soln. for offset printing plate  
for increased ink receivability)

RN 158520-74-2 HCA

CN 5H-Tetrazole-5-thione, 1-[2-(dibutylamino)ethyl]-1,2-dihydro- (9CI)  
(CA INDEX NAME)

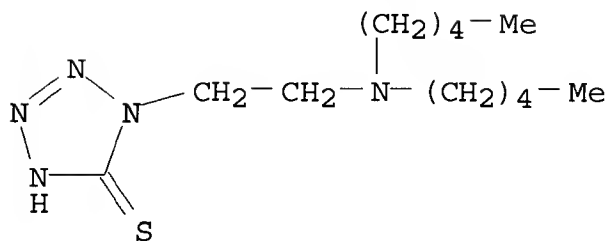


IT 158520-75-3 158520-76-4 158520-77-5  
(processing soln. for offset printing plate  
for increased ink receivability)

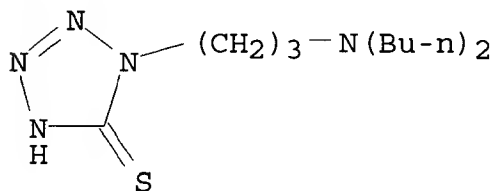
RN 158520-75-3 HCA

CN 5H-Tetrazole-5-thione, 1-[2-(dipentylamino)ethyl]-1,2-dihydro- (9CI)

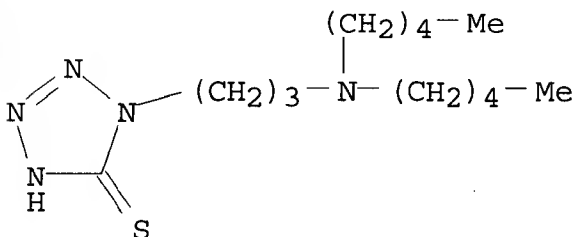
(CA INDEX NAME)



RN 158520-76-4 HCA

CN 5H-Tetrazole-5-thione, 1-[3-(dibutylamino)propyl]-1,2-dihydro- (9CI)  
(CA INDEX NAME)

RN 158520-77-5 HCA

CN 5H-Tetrazole-5-thione, 1-[3-(dipentylamino)propyl]-1,2-dihydro-  
(9CI) (CA INDEX NAME)

IC ICM G03F007-07

ICS B41N003-08

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and  
Other Reprographic Processes)ST offset **printing plate** processing solnIT **Lithographic plates**

(offset, processing solns. for increased ink receivability)

IT **158520-74-2P**(processing soln. for offset **printing plate**  
for increased ink receivability)IT **158520-75-3 158520-76-4 158520-77-5**

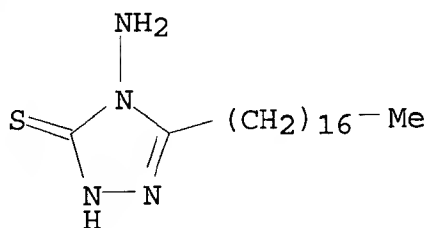
158520-78-6 158520-79-7 158520-80-0

(processing soln. for offset **printing plate**  
for increased ink receivability)

L78 ANSWER 33 OF 45 HCA COPYRIGHT 2003 ACS

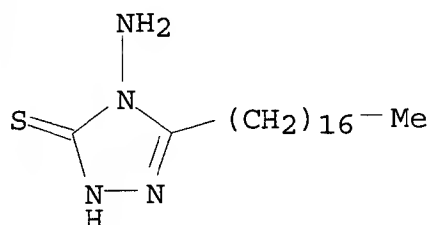


- 121:167020 Solution for treating the surface of silver halide **lithographic printing plates**. Urasaki, Atsushi; Kurokawa, Hiroyuki; Ibaraki, Kazuhiko; Yoshida, Akio (Mitsubishi Paper Mills Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 06079983 A2 19940322 Heisei, 5 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1992-234590 19920902.
- AB The title soln., used for **lithog. plates** having ink-receptive Ag images, contains a water-insol. mercapto compd. or thione compd. and .gtoreq.1 quaternary ammonium salt-type cationic surfactant. The soln. is able to solubilize the mercapto or thione compds. without using solvents, and improve the ink-receptivity of the **lithog. plate**. Thus, a **lithog.** original **plate** using Ag halide emulsion was imagewise exposed, developed, and treated with a stabilizing soln., and the resulting **printing plate** was treated with an aq. soln. contg. 2-mercapto-5-n-heptyloxadiazole, and Arquad T 30 (cationic surfactant) and then subjected to printing.
- IT **23455-87-0**  
(surface-treating soln. contg., of silver halide **lithog. plate**)
- RN 23455-87-0 HCA
- CN 3H-1,2,4-Triazole-3-thione, 4-amino-5-heptyldecyl-2,4-dihydro- (9CI)  
(CA INDEX NAME)



- IC ICM B41N003-08  
ICS G03F007-07
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- ST treating soln silver halide **lithog**; mercapto compd  
treating soln **lithog**; thione compd treating soln  
**lithog**; cationic surfactant treating soln **lithog**
- IT Quaternary ammonium compounds, uses  
(surfactant, surface-treating soln. contg., of silver halide **lithog. plate**)
- IT **Lithographic plates**  
(using silver image as ink receptor, surface treating soln. for)
- IT Quaternary ammonium compounds, uses  
(trimethyltallow alkyl, chlorides, Arquad T 30; surfactant, surface-treating soln. contg., of silver halide **lithog. plate**)
- IT 6857-34-7, 2-Mercapto-4-phenylimidazole **23455-87-0**  
30369-73-4 66473-10-7 157366-94-4  
(surface-treating soln. contg., of silver halide **lithog**)

- . plate)  
 IT 112-00-5, Cation BB 139-07-1, Catiolite BC 50 152166-03-5,  
 Cation F2 20R  
 (surfactant, surface-treating soln. contg., of silver halide  
 lithog. plate)
- L78 ANSWER 34 OF 45 HCA COPYRIGHT 2003 ACS  
 121:145453 Surface-treating solution containing amine solubilizing agent  
 for **lithographic printing plate**.  
 Urasaki, Atsushi; Kurokawa, Hiroyuki; Ibaraki, Kazuhiko; Yoshida,  
 Akio (Mitsubishi Paper Mills Ltd, Japan). Jpn. Kokai Tokkyo Koho JP  
 06079982 A2 19940322 Heisei, 5 pp. (Japanese). CODEN: JKXXAF.  
 APPLICATION: JP 1992-234589 19920902.
- AB The surface-treating soln. for **lithog.** printing using  
 ink-recepticle imaged Ag contains .gtoreq.1 water insol. mercapto or  
 thione compd. and amine. The soln. contg. 2-mercapto-5-  
 heptyloxadiazole gave good ink receptivity and showed stability.
- IT **23455-87-0**, 3-Mercapto-4-amino-5-heptadecyl-1,2,4-triazole  
 (surface-treating agent contg. amine solubilizing agent and, for  
**lithog. plate**, for good ink receptivity)
- RN 23455-87-0 HCA  
 CN 3H-1,2,4-Triazole-3-thione, 4-amino-5-heptadecyl-2,4-dihydro- (9CI)  
 (CA INDEX NAME)



- IC ICM B41N003-08  
 ICS G03F007-07
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and  
 Other Reprographic Processes)
- ST mercapto agent **lithog printing plate**;  
 thione agent **lithog printing plate**;  
 amine solubilizing agent **lithog plate**
- IT **Lithographic plates**  
 (surface-treating soln., contg. amine solubilizing agent, for  
 good ink receptivity and stability)
- IT 102-71-6, uses 107-10-8, Propylamine, uses 108-00-9 110-89-4,  
 Piperidine, uses 61413-47-6, 2-Aminomethylethanolamine  
 (solubilizing agent, for mercapto or thione surface-treating  
 agent of **lithog. plate**, for good ink  
 receptivity and stability)
- IT 6857-34-7, 2-Mercapto-4-phenylimidazole **23455-87-0**,  
 3-Mercapto-4-amino-5-heptadecyl-1,2,4-triazole 30369-73-4,  
 2-Amino-4-mercapto-6-benzyl-1,3,5-triazine 66473-10-7,  
 2-Mercapto-5-heptyloxadiazole 157366-94-4, 3-

## Dodecylbenzothiazoline-2-thione

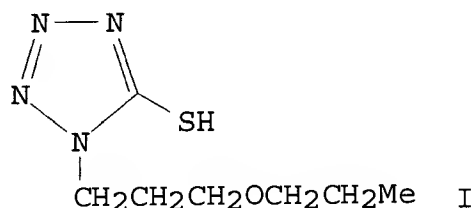
(surface-treating agent contg. amine solubilizing agent and, for  
lithog. plate, for good ink receptivity)

L78 ANSWER 35 OF 45 HCA COPYRIGHT 2003 ACS

120:311644 Processing liquid for offset **printing**

**plates.** Takada, Masakazu; Hashimoto, Takimi; Miura,  
Taketoshi (Mitsubishi Paper Mills Ltd, Japan). Jpn. Kokai Tokkyo  
Koho JP 05249685 A2 19930928 Heisei, 6 pp. (Japanese). CODEN:  
JKXXAF. APPLICATION: JP 1992-47299 19920304.

GI



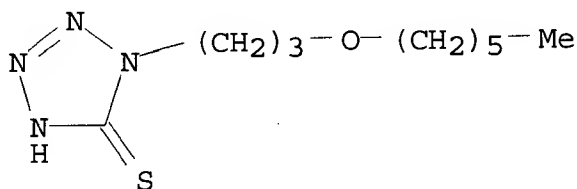
AB The title liq. contains a mercaptotetrazole deriv. (Markush  
structure given). I is an example of said mercaptotetrazole deriv.  
The title liq. is highly stable.

IT **155085-94-2**

(processing liq. contg., for offset **printing**  
**plates**)

RN 155085-94-2 HCA

CN 5H-Tetrazole-5-thione, 1-[3-(hexyloxy)propyl]-1,2-dihydro- (9CI)  
(CA INDEX NAME)



IC ICM G03F007-07

ICS B41N003-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and  
Other Reprographic Processes)

ST offset **printing plate** processing liq;  
mercaptotetrazole **printing plate** processing liq

IT **Lithographic plates**

(mercaptotetrazoles in processing liq.)

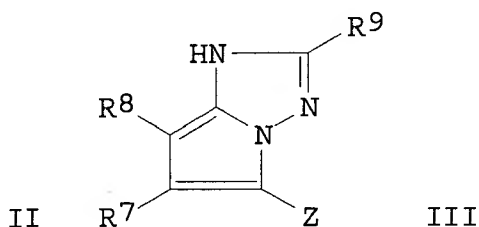
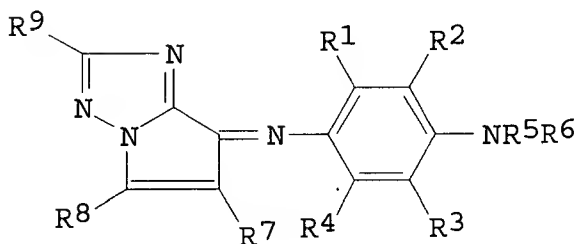
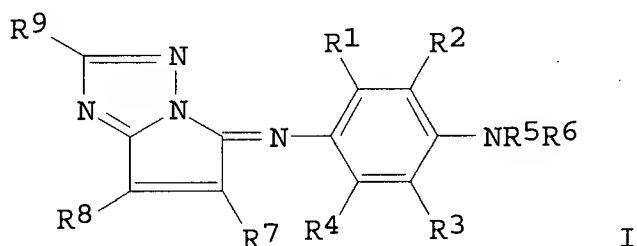
IT 155085-93-1 **155085-94-2** 155085-95-3 155085-96-4

(processing liq. contg., for offset **printing**  
**plates**)

L78 ANSWER 36 OF 45 HCA COPYRIGHT 2003 ACS

118:214886 Pyrrolotriazoles. Suzuki, Makoto; Mikoshiba, Hisashi; Takahashi, Osamu; Shimada, Yasuhiro; Matsuoka, Koushin; Yamazaki, Shigeru; Yamakawa, Kazuyoshi; Sato, Kozo (Fuji Photo Film Co., Ltd., Japan). Eur. Pat. Appl. EP 518238 A1 19921216, 65 pp. DESIGNATED STATES: R: CH, DE, FR, GB, LI, NL. (English). CODEN: EPXXDW. APPLICATION: EP 1992-109588 19920605. PRIORITY: JP 1991-162324 19910607; JP 1991-311212 19911127; JP 1991-335861 19911127; JP 1992-69980 19920221.

GI



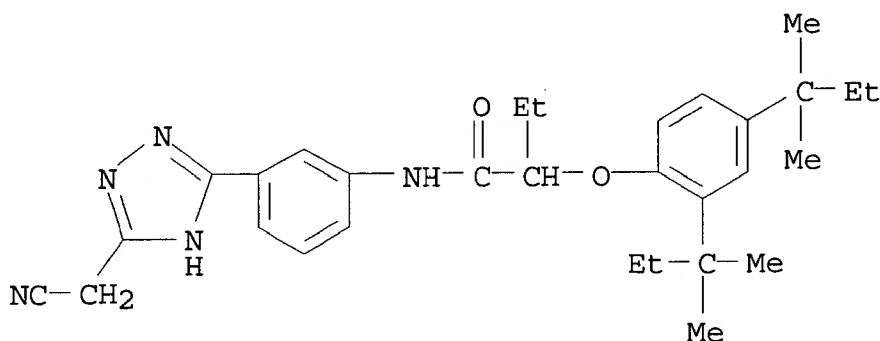
AB Heat- and lightfast cyan dyes I and II and cyan couplers III (R1-R4, R8, R9 = H, org. group; R5, R6 = H, alkyl, aryl, heterocyclyl; R7 = electrophilic group with Hammett  $\sigma_p$   $\geq 0.15$ ; the sum of the  $\sigma_p$  of R7 and R8 is  $\geq 0.65$ ; pairs of adjacent R's may form fused rings; Z = H, NO, halo, arylthio, arylsulfinyl, heterocyclylthio) are provided. Thus, cyclocondensation of 3-(cyanomethyl)-5-methyl-1,2,4-triazole with BrCH<sub>2</sub>COCO<sub>2</sub>Et in THF in the presence of NaH gave 45% III (R7 = CO<sub>2</sub>Et, R8 = CN, R9 = Me, Z = H), which was oxidatively condensed with 4-[ethyl[2-(methylsulfonylamino)ethyl]amino]-o-toluidine-H<sub>2</sub>SO<sub>4</sub> to give 37% I (R1 = R9 = Me, R2-R4 = H, R5 = Et, R6 = CH<sub>2</sub>CH<sub>2</sub>NHSO<sub>2</sub>Me, R7 = CO<sub>2</sub>Et, R8 = CN),  $\lambda_{\max}$  602.3 nm in EtOAc, compared with 562.6 nm for the analog with R7 = Ph.

IT 146822-19-7

(cyclocondensation of, with Et bromopyruvate)

RN 146822-19-7 HCA

CN Butanamide, 2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-N-[3-[5-(cyanomethyl)-1H-1,2,4-triazol-3-yl]phenyl]- (9CI) (CA INDEX NAME)

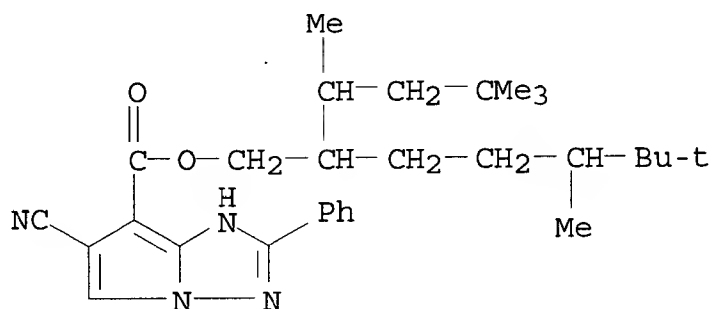


IT 146822-67-5P

(prepn. of)

RN 146822-67-5 HCA

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid,  
6-cyano-2-phenyl-, 5,6,6-trimethyl-2-(1,3,3-trimethylbutyl)heptyl  
ester (9CI) (CA INDEX NAME)



IC ICM C07D487-04

CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and  
Photographic Sensitizers)  
Section cross-reference(s): 28

IT Inks

(jet-printing, pyrrolotriazole azomethine  
dyes for, cyan)

IT 86999-26-0 146822-19-7 146822-21-1

(cyclocondensation of, with Et bromopyruvate)

IT 143324-22-5P	143324-37-2P	146822-23-3P	146822-25-5P
146822-30-2P	146822-38-0P	146822-39-1P	146822-40-4P
146822-41-5P	146822-42-6P	146822-43-7P	146822-44-8P
146822-45-9P	146822-46-0P	146822-47-1P	146822-48-2P
146822-49-3P	146822-50-6P	146822-51-7P	146822-52-8P
146822-53-9P	146822-54-0P	146822-55-1P	146822-56-2P
146822-57-3P	146822-58-4P	146822-59-5P	146822-60-8P
146822-61-9P	146822-62-0P	146822-63-1P	146822-64-2P
146822-65-3P	146822-66-4P	146822-67-5P	146822-68-6P
146843-34-7P	147368-58-9P		

(prepn. of)

L78 ANSWER 37 OF 45 HCA COPYRIGHT 2003 ACS

118:104786 Lightfast pyrazoloazole azomethine dyes. Mikoshiba, Takashi; Tanaka, Mitsugi; Morigaki, Masakazu; Kubodera, Seiichi (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 04178646 A2 19920625 Heisei, 34 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1990-305974 19901114.

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

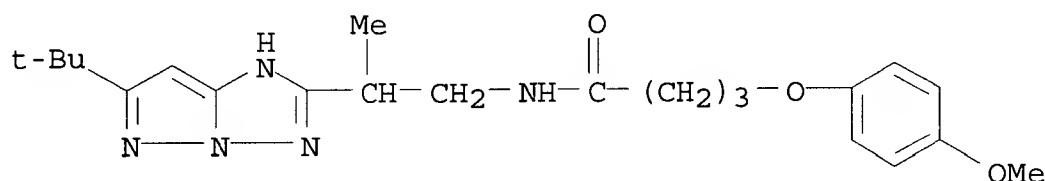
AB The dyes, useful for **inks (jet-printing**, thermal-transfer, etc.), have the general formula I (R1, R2 = H, alkyl, aryl, heterocyclyl; R3-R7 = H, nonmetallic substituent; specific pairs of Ri may combine to form fused rings; Za, Zb, Zc = CR8, N; R8 = H, nonmetallic substituent; .gtoreq.1 of R1-R8 contains a phenoxy or N heterocyclic group). II, .lambda.max 504 nm, was prepd. in 41.8% yield starting from III and p-H2NC6H4N(CH2CH2CN)CH2CH2OC6H4OMe-p tosylate.

IT 145689-27-6

(condensation of, with arom. amines)

RN 145689-27-6 HCA

CN Butanamide, N-[2-[6-(1,1-dimethylethyl)-1H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]propyl]-4-(4-methoxyphenoxy)- (9CI) (CA INDEX NAME)



IC ICM G03C007-38

ICS C07D487-04; C09B055-00

CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)  
Section cross-reference(s): 42

IT **Inks**

(**jet-printing**, lightfast pyrazolotriazole azomethine dyes for)

IT 101948-27-0 119052-51-6 136640-20-5 136640-29-4 137581-82-9  
145689-20-9 145689-21-0 **145689-27-6** 145689-30-1  
(condensation of, with arom. amines)

L78 ANSWER 38 OF 45 HCA COPYRIGHT 2003 ACS

106:129366 Silver halide **lithographic printing**

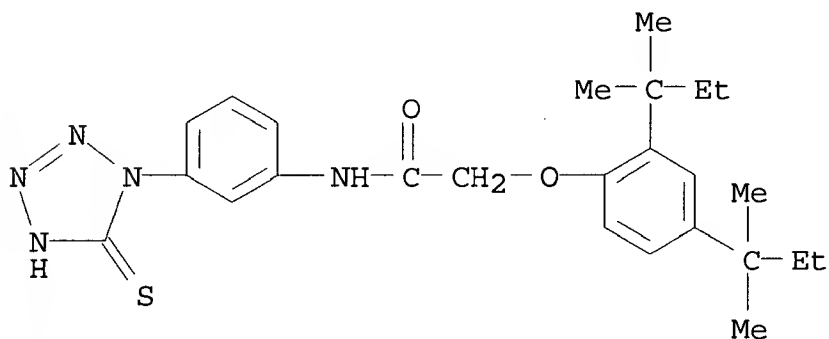
**plates** and tone reduction method. Hanyu, Takeshi; Ibe, Yoshio (Konishiroku Photo Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 61147247 A2 19860704 Showa, 15 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1984-270079 19841220.

AB The title **plates**, that permit extensive d. redn. by dot etching with tolerable decrease of dot d., using relatively small amt. of Ag, contain hydrazine compds. and also inhibitors of bleaching of Ag in nonphotosensitive layer adjacent to photosensitive Ag halide layer and/or in auxiliary Ag halide layers that contain <1/5 of the total Ag contained. The claim includes the redn. process of the **plates**. Thus, a Ag(I,Br) emulsion was prepd. contg. 1-formyl-{2,4-[2-(2,4-di-tert-pentylphenoxy)butylamido]phenyl}hydrazide (I). A gelatin soln., added with mat agent, spreading agent, and 2-mercaptopyridine (II, bleaching inhibitor) was also prepd. and added with a hardener. These were simultaneously coated on an undercoated PET film, to form an emulsion layer contg. Ag, gelatin, and I and a protective layer contg. II. The obtained material was exposed, normally processed, and reduced using Farmer's soln. until the dot d. was reduced to 3.0. The decrease of the dot area was 10 vs. 5% for the control material that did not contain II in the protective layer and vs. 5.2% for another control that contained II in the emulsion layer instead of in the protective layer.

IT 14853-26-0  
(bleaching inhibitor, in silver halide **lithog.**  
**printing plate** in presence of hydrazide compd.  
for tone redn.)

RN 14853-26-0 HCA

CN Acetamide, 2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-N-[3-(2,5-dihydro-5-thioxo-1H-tetrazol-1-yl)phenyl]- (9CI) (CA INDEX NAME)



IC ICM G03C001-06

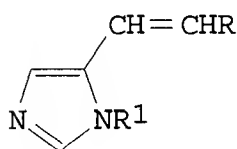
ICS G03C005-42

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST silver halide printing material dot etching; bleaching inhibitor photosensitive **lithog** material; tone redn **lithog**  
**plate** hydrazide

IT **Lithographic plates**

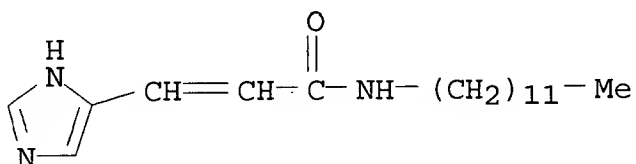
- (silver halide, tone redn. method for)
- IT 86-93-1 91-60-1 2637-34-5, 2-Mercaptopyridine 2637-37-8,  
2-Quinolinethiol 5842-00-2, 2-(n-Butylamino)ethanethiol  
5891-05-4 **14853-26-0** 30546-59-9  
(bleaching inhibitor, in silver halide **lithog.**  
**printing plate** in presence of hydrazide compd.  
for tone redn.)
- IT 86551-61-3  
(in tone redn. of silver halide **lithog.**  
**printing plates**)
- L78 ANSWER 39 OF 45 HCA COPYRIGHT 2003 ACS  
102:103697 Material for **ink-jet recording**.  
(Ricoh Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 59169883 A2  
19840925 Showa, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP  
1983-43231 19830317.
- GI



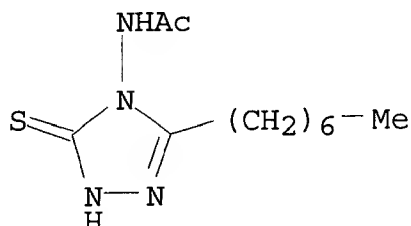
I

- AB Receptor material for **ink-jet recording**  
has, at its surface, a compd. having the general formula I (R =  
CONR2R3, CO2M; M = alkali metal, ammonium, quaternary ammonium; R1 =  
H, C1-5 alkyl or acyl; R2,R3 = (independently) H, C1-15 alkyl, OH,  
hydroxyalkyl). The color images obtained on the material have  
improved fastness. It also provides wider choice of the ink dyes.  
Thus, a plain paper sheet was undercoated with a dispersion contg.  
pptd. CaCO3 35, butadiene-styrene copolymer 12 (as solid), and water  
53%. Then a soln. contg. urocanic acid 10 and AlCl3 5% was coated  
on the material (3.5 g/m2). Obtained material was supercalendered.  
Tests showed high UV absorption, high soly. in water, and  
nontoxicity of the coating. The images obtained using an ink contg.  
Acid Red 92 showed extra lightfastness toward Hg lamp radiation.
- IT **52776-88-2**  
(**ink-jet recording** receptor sheet  
with layer contg.)
- RN 52776-88-2 HCA
- CN 2-Propenamide, N-dodecyl-3-(1H-imidazol-4-yl)- (9CI) (CA INDEX  
NAME)





- IC B41M005-00; D21H001-38  
 CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 ST recording **inkjet** receptor urocanic acid  
 IT **Recording materials**  
     (**ink-jet**, contg. urocanic acid derivs. for improved lightfastness of color images, for receptor sheets)  
 IT **Printing**  
     (**ink-jet**, receptor sheet for, contg. urocanic acid deriv. for improved lightfastness of color images)  
 IT 111-46-6, uses and miscellaneous 4418-26-2 7772-98-7  
 18472-87-2  
     (**ink-jet recording** receptor sheet for ink contg.)  
 IT 104-98-3 6159-49-5 **52776-88-2**  
     (**ink-jet recording** receptor sheet with layer contg.)
- L78 ANSWER 40 OF 45 HCA COPYRIGHT 2003 ACS  
 101:15053 Treating solutions for **lithographic printing plates**. (Mitsubishi Paper Mills, Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 58162392 A2 19830927 Showa, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1982-44833 19820320.
- AB Acidic or weakly basic treating solns. for **lithog. printing plates** contain antibacterial org. compds. and triethylenetetraminehexaacetic acid (I). The solns. are useful for preventing bacteria growth. Thus, treating solns. for developed **lithog. plates** were prepd. from aq. solns. of NaH<sub>2</sub>PO<sub>4</sub>, NaSO<sub>3</sub>, gelatin, antibiotics, and I. No mold growth was obsd. after 12 wk.
- IT **32444-85-2**  
     (**lithog. plate** treated solns. contg. triethylenetetraminehexaacetic acid, antibacterial org. compds. and)
- RN 32444-85-2 HCA  
 CN Acetamide, N-(3-heptyl-1,5-dihydro-5-thioxo-4H-1,2,4-triazol-4-yl)-(9CI) (CA INDEX NAME)



- IC B41N003-08; G03F007-06
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- ST **lithog** treating soln triethylenetetraminehexaacetic acid; antibacterial treating soln **lithog plate**
- IT **Lithographic plates**  
(treating solns. contg. triethylenetetraminehexaacetic acid and antibacterial org. compds. for)
- IT 7631-86-9, uses and miscellaneous  
(colloidal, **lithog. plate** treating solns. contg. antibacterial org. compds., triethylenetetraminehexaacetic acid and)
- IT 67-63-0, uses and miscellaneous 77-92-9, uses and miscellaneous  
107-21-1, uses and miscellaneous 994-36-5 7558-80-7 7631-99-4,  
uses and miscellaneous 7664-38-2, uses and miscellaneous  
7757-83-7 13138-45-9 **32444-85-2**  
(**lithog. plate** treated solns. contg. triethylenetetraminehexaacetic acid, antibacterial org. compds. and)
- IT 869-52-3  
(**lithog. plate** treating solns. contg. antibacterial org. compds. and)
- IT 88-06-2 139-08-2 533-74-4 2893-78-9 6317-18-6 52262-55-2  
57503-06-7 90580-03-3 90580-04-4  
(**lithog. plate** treating solns. contg. triethylenetetraminehexaacetic acid and)
- L78 ANSWER 41 OF 45 HCA COPYRIGHT 2003 ACS
- 100:219069 Treating solutions for **lithographic printing plates**. (Mitsubishi Paper Mills, Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 58162393 A2 19830927 Showa, 5 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1982-44834 19820320.
- AB Treating solns., which are used for after development of **lithog. printing plates** whose Ag images are photog. formed and whose ink-rejecting nonimage areas consist of hydrophilic colloids, contain triethylenetetraminehexaacetic acid (I) or its salt. The solns. are useful for increasing the ink rejection of nonimage areas and do not affect the ink acceptance of the image areas. Thus, **lithog. printing plates** were exposed and developed by a conventional photog. method, printed after oil-sensitization, and treated in a soln. contg. I Na salt to give **lithog. printing**

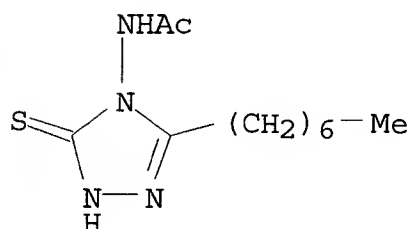
**plates** with superior **printing** characteristics.

IT 32444-85-2

(treating solns. contg. sodium triethylenetetraminehexaacetate and, for developed **lithog. plates**)

RN 32444-85-2 HCA

CN Acetamide, N-(3-heptyl-1,5-dihydro-5-thioxo-4H-1,2,4-triazol-4-yl)-(9CI) (CA INDEX NAME)



IC B41N003-08; G03F007-06

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST **lithog** treating soln triethylenetetraminehexaacetic acid

IT **Lithographic plates**

(treating solns. contg. triethylenetetraminehexacetic acid or its salt for)

IT 7631-86-9, uses and miscellaneous

(colloidal, treating solns. contg. sodium triethylenetetraminehexaacetate and, for developed **lithog. plates**)

IT 18719-04-5

(**lithog. plate** treating solns. contg.)

IT 67-63-0, uses and miscellaneous 77-92-9, uses and miscellaneous

107-21-1, uses and miscellaneous 994-36-5 7558-80-7 7664-38-2, uses and miscellaneous 7757-83-7 13138-45-9 **32444-85-2**

(treating solns. contg. sodium triethylenetetraminehexaacetate and, for developed **lithog. plates**)

L78 ANSWER 42 OF 45 HCA COPYRIGHT 2003 ACS

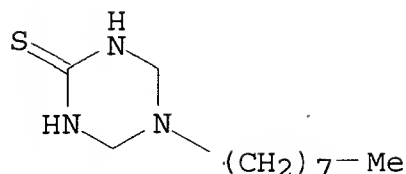
94:22968 Electrostatographic toners for offset **printing**

**plates**. (Tomoegawa Paper Mfg. Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 55065962 19800517 Showa, 5 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1978-138900 19781113.

AB A mixt. of epoxy resin and coloring agent is melt-kneaded in the presence of amines, amides, imines, or imides, then cooled, and pulverized to give an electrostatog. toner. The toners are esp. useful for electrophotog. prepn. of offset **printing plates**. Thus, Epikote 1004 100, an imidazole type hardener (Curesol C17Z) 10, carbon black 5 and nigrosine dye 3 parts were melt-kneaded, cooled, and pulverized to give an electrophotog. toner. The toner was used to prep. a dry-offset **printing plate** having silicone-rubber surface. The **printing plate** exhibited good durability.

IT 75977-66-1

- (hardening agent, for epoxy resin binder for electrostatog. toners)
- RN 75977-66-1 HCA
- IC G03G009-08; G03G013-28
- CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic Processes)
- ST electrophotog toner epoxy resin hardener; **printing plate** electrophotog toner
- IT **Lithographic plates**  
(electrophotog. toner for prepn. of)
- IT Carbon black, uses and miscellaneous  
(electrostatog. toners contg., for offset **printing plates**)
- IT Photography, electro-, developers  
(toners, for offset **printing plate** prepn.)
- IT 8005-03-6 25068-38-6  
(electrostatog. toners contg., for offset **printing plates**)
- IT **75977-66-1** 75978-00-6  
(hardening agent, for epoxy resin binder for electrostatog. toners)
- L78 ANSWER 43 OF 45 HCA COPYRIGHT 2003 ACS
- 81:129916 Processing of **lithographic silver printing plates**. Serrien, Frans P.; Tavernier, Bernard H.; Pollet, Robert J.; Sel, Francis J. (Agfa-Gevaert A.-G.). Ger. Offen. DE 2349527 19740418, 36 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1973-2349527 19731002.
- AB Ag images on **lithog. plates** can be rendered highly ink-receptive by solns. of pH 4.6-6.2 in place of the highly alk. baths by Brit. patent 1,241,661 contg.  $K_3Fe(CN)_6$ . The solns. contain as oxidant for the Ag (obtained by the Ag complex salt diffusion process)  $Fe^{3+}$  in the form of an ammonium malonate complex salt 20-120 g, a sulfonated heterocyclic compd. with a thione group to react with the oxidized Ag 0.5-15 g, KI to prevent  $Ag^+$  diffusion 5-40 g, an aliph. amine with >4 C atoms ( $C_8H_{17}NH_2$ ) 10-75 ml, and solvents to keep the thione in soln. The preferred thione is I, obtainable from 2-hydrazine-6-sulfobenzothiazole by reaction with  $CS_2$ . The treatment, preferably prior to press use, is carried out by immersion, spraying, or wiping, usually within 20 sec.
- IT **53517-96-7P**  
(prepn. of)
- RN 53517-96-7 HCA
- CN 1,3,5-Triazine-2(1H)-thione, tetrahydro-5-octyl- (9CI) (CA INDEX NAME)



- IC B41M  
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic Processes)  
 ST thione ink receptivity **lithog**; silver **lithog** ink receptivity; sulfotriazolobenzothiazolethione ink receptivity **lithog**; triazolobenzothiazolethione ink receptivity **lithog**  
 IT Photographic processing  
   (fixing solns. for, contg. thiones for improved **lithog**.  
   **printing plate** ink receptivity)  
 IT Thiones  
   (photog. fixing solns. contg., for improved **lithog**.  
   **printing plate** ink receptivity)  
 IT **Lithographic plates**  
   (photog., fixing solns. for, contg. thiones for improved ink  
   receptivity)  
 IT 111-86-4 7681-11-0, uses and miscellaneous 53598-22-4  
   (photog. fixing solns. contg. thiones and, for improved  
   **lithog. printing plate** ink  
   receptivity)  
 IT 35978-12-2 38494-55-2 53517-94-5  
   (photog. fixing solns. contg., for improved **lithog**.  
   **printing plate** ink receptivity)  
 IT 2360-22-7P 7271-49-0P 24521-43-5P 24521-44-6P 53517-95-6P  
   **53517-96-7P**  
   (prepn. of)
- L78 ANSWER 44 OF 45 HCA COPYRIGHT 2003 ACS  
 80:126797 Offset **printing plate**. Suzuki,  
 Shigeyoshi; Kobayashi, Norio; Futaki, Kiyoshi (Mitsubishi Paper  
 Mills, Ltd.). U.S. US 3776728 19731204, 6 pp. (English). CODEN:  
 USXXAM. APPLICATION: US 1972-239756 19720330.
- AB Transfer developer solns. for use in producing offset  
**printing plates** by the Ag complex salt diffusion  
 process are comprised of 3-20 g/l. of a developing agent, such as  
 Metol, Phenidone, or hydroquinone, 5-30 g/l. of a Ag halide solvent,  
 such as Na<sub>2</sub>SO<sub>3</sub>, Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, KCN, or thiourea, and 0.05-1 g/l. of a  
 benzothiazole, oxadiazole, tetrazole, or thiazole deriv. Thus, an  
 offset master **plate**, prepd. by coating gelatin-subbed  
 waterproof raw paper with a soln. contg. 0.2% AgNO<sub>3</sub> 10, 1% KBr 1, 2%  
 HcHO 10, and 0.03N NaOH 100 cm<sup>3</sup>, was contacted with a com. neg.  
 sheet and processed in a automatic machine using a developer contg.  
 Na hexametaphosphate, 1 Phenidone 2, Na<sub>2</sub>SO<sub>3</sub> 150, KBr 3, KOH 12, NaOH

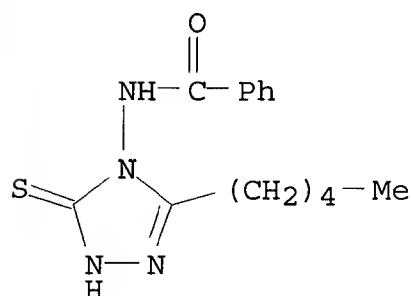
12, 5-phenyl-2-mercaptotriazole 0.2, 4-benzamido-3-mercapto-5-pentyl-1,2,4-triazole 0.4, and H<sub>2</sub>O to 1 l. to give an offset **printing plate** that could be used immediately at 150 impressions/min and which gave clear impressions with little contamination.

IT 32444-84-1 32444-85-2

(photographic **lithographic** developer soln. contg.)

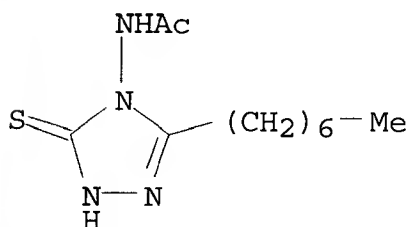
RN 32444-84-1 HCA

CN Benzamide, N-(1,5-dihydro-3-pentyl-5-thioxo-4H-1,2,4-triazol-4-yl)-(9CI) (CA INDEX NAME)



RN 32444-85-2 HCA

CN Acetamide, N-(3-heptyl-1,5-dihydro-5-thioxo-4H-1,2,4-triazol-4-yl)-(9CI) (CA INDEX NAME)



IC G03C

NCL 096029000L

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic Processes)

ST diffusion transfer offset master; transfer developer offset master; **printing plate** offset master

IT **Lithographic plates**

(by photographic silver salt diffusion transfer process, developer soln. for)

IT Photographic developers

(**lithographic**, contg. polyazoles)

IT 32479-68-8

(photographic **lithographic** developer contg.)

IT 2254-94-6 3004-42-0 27410-48-6 30342-90-6 31130-15-1

31130-16-2 32444-84-1 32444-85-2 39573-31-4

(photographic **lithographic** developer soln. contg.)

L78 ANSWER 45 OF 45 HCA COPYRIGHT 2003 ACS

76:119909 Developing a photographic **printing plate**.

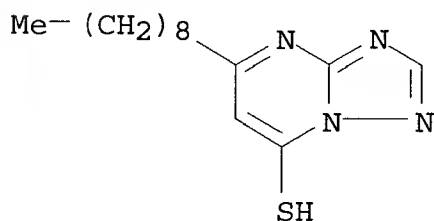
Shimamura, Isao; Iijima, Yoo; Okutsu, Eiichi; Iwano, Haruhiko; Shishido, Tadao; Ohi, Reiichi (Fuji Photo Film Co., Ltd.). Ger. Offen. DE 2128498 19711216, 21 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1971-2128498 19710608.

AB - or 4-Mercaptotetraazaindenes retard the action of **lithog** . film developers and thus extend the time latitude of processing before the dot quality deteriorates due to halation. A compd. such as 2-benzyl-6-methyl-1,3,3a,7-tetraazaindene-4-thiol, at a concn. of 1 .times. 10<sup>-5</sup>-1 .times. 10<sup>-3</sup> mole/l. or per mole Ag halide, is added to the developer or incorporated in the emulsion prior to coating, resp.

IT 34270-44-5 34270-45-6  
(photog. lith development in presence of)

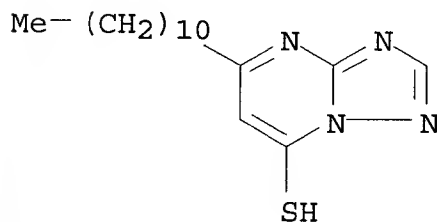
RN 34270-44-5 HCA

CN [1,2,4]Triazolo[1,5-a]pyrimidine-7-thiol, 5-nonyl- (9CI) (CA INDEX NAME)



RN 34270-45-6 HCA

CN [1,2,4]Triazolo[1,5-a]pyrimidine-7-thiol, 5-undecyl- (9CI) (CA INDEX NAME)



IC G03C

CC 74 (Radiation Chemistry, Photochemistry, and Photographic Processes)

ST mercaptatetraazaindene **lithog** emulsion developer;  
tetraazaindene **lithog** emulsion developer

IT **Lithography**  
(photog. development for, in presence of mercaptotetraazaindene derivs.)

IT 34270-44-5 34270-45-6 34276-69-2 36325-77-6  
36325-78-7

(photog. lith development in presence of)

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L79 ANSWER 1 OF 8 HCA COPYRIGHT 2003 ACS

133:185449 Heat-developable ultrahigh contrast photographic material suitable for **printing plate** making. Ezoe, Toshihide; Yamada, Kosaburo (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2000221633 A2 20000811, 54 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-21974 19990129.

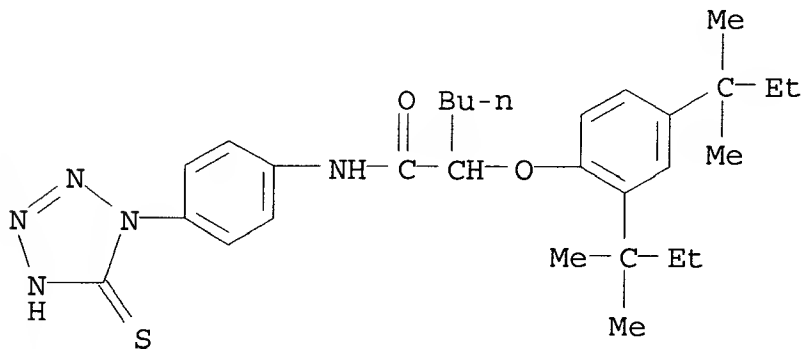
AB The heat-sensitive photog. material contains (1) a high contrast agent selected from a specific substituted alkene deriv., substituted isoxazole deriv., and acetal compd., (2) X1-Jn-B1 (X1 = photog. development inhibitor contg. N-contg. ring; J = divalent connection group; B1 = ballast group; n .gtoreq.1), (3) polymer contg. Q-X2 (Q = ethylenic unsatd. group, group contg. ethylenic unsatd. group; X2 = photog. development inhibitor contg. N-contg. ring) and (4) A1-X3 (A1 = group contg. water-sol. group; X3 = photog. development inhibitor contg. N-contg. ring). The photog. material surface has pH value of 3-7.

IT 110802-27-2 212571-92-1

(in heat-developable ultrahigh contrast photog. material suitable for **printing plate** making)

RN 110802-27-2 HCA

CN Hexanamide, 2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-N-[4-(2,5-dihydro-5-thioxo-1H-tetrazol-1-yl)phenyl]- (9CI) (CA INDEX NAME)

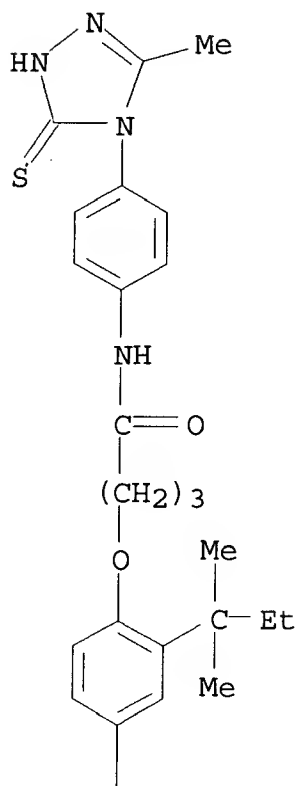


RN 212571-92-1 HCA

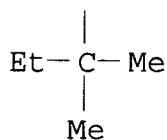
CN Butanamide, 4-[2,4-bis(1,1-dimethylpropyl)phenoxy]-N-[4-(1,5-dihydro-3-methyl-5-thioxo-4H-1,2,4-triazol-4-yl)phenyl]- (9CI) (CA INDEX NAME)



PAGE 1-A



PAGE 2-A



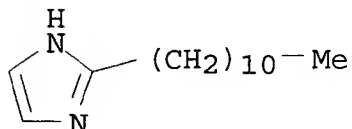
- IC ICM G03C001-498  
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 IT Imaging agents  
     (contrast; heat-developable ultrahigh contrast photog. material suitable for **printing plate** making)  
 IT Photographic couplers  
     (development-inhibitor-releasing; heat-developable ultrahigh contrast photog. material suitable for **printing plate** making)  
 IT pH  
     (heat-developable ultrahigh contrast photog. material suitable

- for **printing plate** making)
- IT Photographic paper  
(heat-developable; heat-developable ultrahigh contrast photog.  
material suitable for **printing plate** making)
- IT Photographic films  
(high-contrast; heat-developable ultrahigh contrast photog.  
material suitable for **printing plate** making)
- IT 7440-66-6D, Zinc, ((dimethylpropyl)phenoxy)propioamidophenyl)formylp  
yrazoledione complex, uses 23015-22-7 41018-11-5 110608-95-2  
110802-27-2 126528-88-9 212571-92-1  
212572-06-0 212572-13-9 212572-42-4 263553-17-9 282090-76-0  
288089-65-6 288089-67-8 288089-68-9 288089-69-0 288089-70-3  
288089-71-4 288253-32-7D, zinc complex  
(in heat-developable ultrahigh contrast photog. material suitable  
for **printing plate** making)
- L79 ANSWER 2 OF 8 HCA COPYRIGHT 2003 ACS
- 133:59619 Cyanate-epoxy resin composition, and prepreg, metal  
foil-laminated **plate** and **printed** wiring board  
using the same. Tomioka, Kenichi; Takano, Nozomu; Fukuda, Tomio;  
Miyatake, Masato; Mizuno, Yasuyuki (Hitachi Chemical Company, Ltd.,  
Japan). PCT Int. Appl. WO 2000039216 A1 20000706, 25 pp.  
DESIGNATED STATES: W: KR, US; RW: AT, BE, CH, CY, DE, DK, ES, FI,  
FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (Japanese). CODEN: PIXXD2.  
APPLICATION: WO 1999-JP7227 19991222. PRIORITY: JP 1998-365947  
19981224; JP 1998-365948 19981224.
- AB A cyanate-epoxy resin compn. comprises (A) a cyanate type compd.  
contg. two or more cyanato groups in one mol. thereof, (B) an epoxy  
resin, and (C) a curing accelerator system as main components,  
wherein the epoxy resin is derived from a dicyclopentadiene-phenol  
polyaddn. product having a cyclopentadiene skeleton and the curing  
accelerator system comprises both a compd. having the function to  
accelerate the curing reaction of the above (A) and a compd. having  
the function to accelerate the curing reaction of the above (B).  
The resin compn. is excellent in glass transition temp., dielec.  
characteristics, heat resistance and the property of low  
susceptibility to water, and can be effectively used for prepreg. a  
prepreg and for manufg. a laminate, a metal foil-laminated  
**plate** and a **printed** wiring board using the  
prepreg. Thus, a 0.2 mm-thick glass fabric was impregnated with a  
vanish comprising Arocy B 30 100, HP 7200H 95, ESB 400T 55,  
naphthenic acid cobalt salt 0.5, and 2MZ 1 parts, dried at  
160.degree. for 5 min to give a prepreg, 4 pieces of which were  
placed between two 18 .mu.m-thick copper foils, press-molded at  
170.degree. and 2.45 MPa for 1 h to give a copper-clad laminate, on  
which an etching resist was formed and etched to give a printed  
circuit board having dielec. const. (1 MHz) 3.8, Tg 190.degree.,  
good solder heat resistance, water absorption 0.4%, and flame  
retardant (UL-94) V-0.
- IT 16731-68-3, C 11Z  
(curing accelerator; prepn. of cyanate-epoxy resin compns. and  
prepreg, metal-laminated **plates** and **printed**

wiring boards therewith)

RN 16731-68-3 HCA

CN 1H-Imidazole, 2-undecyl- (9CI) (CA INDEX NAME)



- IC ICM C08L063-04  
ICS C08L079-04; C08J005-24; B32B015-08
- CC 37-6 (Plastics Manufacture and Processing)  
Section cross-reference(s): 38, 40, 76
- IT Naphthenic acids, uses  
(cobalt salts, curing accelerators; prepn. of cyanate-epoxy resin compns. and prepreg, metal-laminated **plates** and **printed** wiring boards therewith)
- IT Quaternary ammonium compounds, uses  
(curing accelerators; prepn. of cyanate-epoxy resin compns. and prepreg, metal-laminated **plates** and **printed** wiring boards therewith)
- IT Polycyanurates  
Polycyanurates  
(epoxy, dicyclopentadiene-contg.; prepn. of cyanate-epoxy resin compns. and prepreg, metal-laminated **plates** and **printed** wiring boards therewith)
- IT Antioxidants  
(for electrolytic corrosion prevention; prepn. of cyanate-epoxy resin compns. and prepreg, metal-laminated **plates** and **printed** wiring boards therewith)
- IT Reinforced plastics  
(glass fiber-reinforced; prepn. of cyanate-epoxy resin compns. and prepreg, metal-laminated **plates** and **printed** wiring boards therewith)
- IT Naphthenic acids, uses  
(manganese salts, curing accelerators; prepn. of cyanate-epoxy resin compns. and prepreg, metal-laminated **plates** and **printed** wiring boards therewith)
- IT Epoxy resins, preparation  
Epoxy resins, preparation  
(polycyanurate-, dicyclopentadiene-contg.; prepn. of cyanate-epoxy resin compns. and prepreg, metal-laminated **plates** and **printed** wiring boards therewith)
- IT Crosslinking catalysts  
Printed circuit boards  
(prepn. of cyanate-epoxy resin compns. and prepreg, metal-laminated **plates** and **printed** wiring boards therewith)
- IT Glass fiber fabrics  
Laminated plastics, uses  
Metals, uses

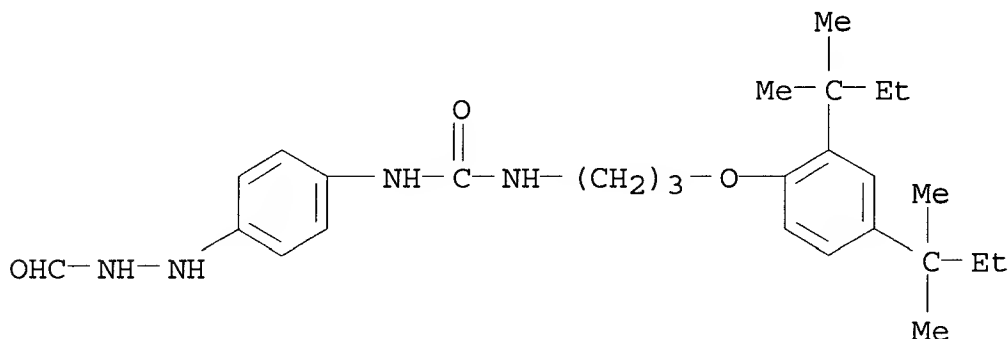
- (prepn. of cyanate-epoxy resin compns. and prepreg, metal-laminated **plates** and **printed** wiring boards therewith)
- IT Reinforced plastics  
(prepregs; prepn. of cyanate-epoxy resin compns. and prepreg, metal-laminated **plates** and **printed** wiring boards therewith)
- IT Amines, uses  
(secondary, curing accelerators; prepn. of cyanate-epoxy resin compns. and prepreg, metal-laminated **plates** and **printed** wiring boards therewith)
- IT Amines, uses  
(tertiary, curing accelerators; prepn. of cyanate-epoxy resin compns. and prepreg, metal-laminated **plates** and **printed** wiring boards therewith)
- IT Naphthenic acids, uses  
(zinc salts, curing accelerators; prepn. of cyanate-epoxy resin compns. and prepreg, metal-laminated **plates** and **printed** wiring boards therewith)
- IT 87-66-1, Pyrogallol 96-69-5  
(antioxidant for electrolytic corrosion prevention; prepn. of cyanate-epoxy resin compns. and prepreg, metal-laminated **plates** and **printed** wiring boards therewith)
- IT 288-32-4, Imidazole, uses 693-98-1, 2MZ 931-36-2, 2E4MZ 7439-89-6, Iron, uses 7439-96-5, Manganese, uses 7440-02-0, Nickel, uses 7440-31-5, Tin, uses 7440-48-4, Cobalt, uses 7440-66-6, Zinc, uses 16731-68-3, C 11Z 49556-76-5, Curezol 2MZ-CNS  
(curing accelerator; prepn. of cyanate-epoxy resin compns. and prepreg, metal-laminated **plates** and **printed** wiring boards therewith)
- IT 276864-59-6P 276864-60-9P  
(prepn. of cyanate-epoxy resin compns. and prepreg, metal-laminated **plates** and **printed** wiring boards therewith)
- IT 7440-50-8, Copper, uses  
(prepreg laminated with, or curing accelerator; prepn. of cyanate-epoxy resin compns. and prepreg, metal-laminated **plates** and **printed** wiring boards therewith)
- L79 ANSWER 3 OF 8 HCA COPYRIGHT 2003 ACS  
117:160735 Silver halide photographic material giving less markings from adhesive tapes in film making for **printing plate**  
. Hanyu, Takeshi; Yoshida, Kazuhiro (Konica Co., Japan). Jpn. Kokai Tokkyo Koho JP 04003048 A2 19920108 Heisei, 12 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1990-105845 19900419.
- AB A Ag halide photog. material contains a dispersion of UV-absorbing solid microparticles, e.g. 4,4'-bis(substituted amino)benzophenones. Addnl. the photog. material contains a hydrazine deriv. or tetrazolium salt deriv. The photog. material also gives superior line copy property in film making for **printing plate**.

IT 105754-54-9

(photog. film contg., for **printing plate**)

RN 105754-54-9 HCA

CN Urea, N-[3-[2,4-bis(1,1-dimethylpropyl)phenoxy]propyl]-N'-[4-(2-formylhydrazino)phenyl]- (9CI) (CA INDEX NAME)



IC ICM G03C001-06

ICS G03C001-815

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST photog film **printing plate**; adhesive tape marking; UV absorber benzophenone microparticle suspension; hydrazine tetrazolium salt photog filmIT Photographic films (for **printing plates**, contg. UV-absorbing benzophenone derivs. and hydrazine or tetrazolium salt deriv.)IT 143558-59-2 143558-60-5 (UV-absorber, photog. film contg., for **printing plate**)IT 902-00-1 102274-58-8 105754-54-9 110872-80-5 128956-44-5 141303-19-7 (photog. film contg., for **printing plate**)

L79 ANSWER 4 OF 8 HCA COPYRIGHT 2003 ACS

113:241376 Photographic material for **printing plate** making. Yamada, Taketoshi; Habu, Takeshi; Takamuki, Yasuhiko (Konica Co., Japan). Eur. Pat. Appl. EP 367572 A1 19900509, 129 pp. DESIGNATED STATES: R: DE, FR, GB, IT, NL. (English). CODEN: EPXXDW. APPLICATION: EP 1989-311258 19891031. PRIORITY: JP 1988-276552 19881031; JP 1988-276560 19881031; JP 1988-332038 19881227; JP 1988-330854 19881228; JP 1988-330863 19881228.

AB Room-light photog. materials which can be used in the prodn. of **printing plates** are comprised of a corona discharge-treated transparent support carrying a Ag halide emulsion layer on the side not given a corona discharge treatment and the corona discharge-treated side is coated with a subbing layer contg. a latex polymer, as nongelatin layer contg. a conductive polymer, and a gelatin layer contg. a conductive polymn. and a backing dye. The materials have superior antistatic characteristics and high

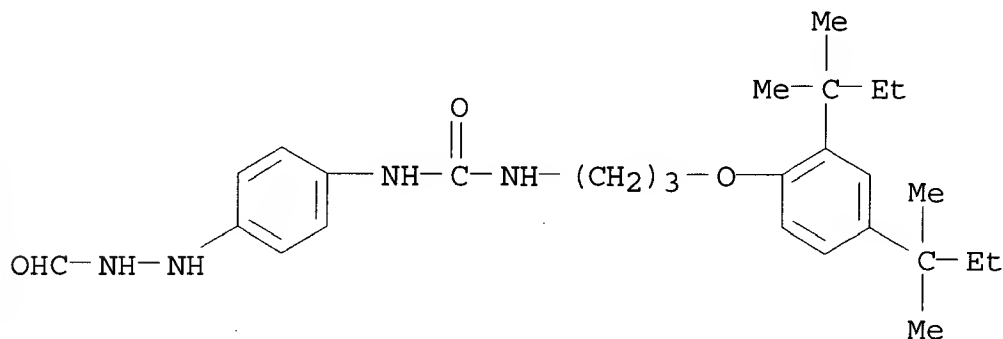
sensitivity, give photog. images with high contrast, and can also produce a halftone with high quality and less fog.

IT 105754-54-9

(photog. materials contg., room-light, giving high-contrast and pinhole-free images for **printing plate** prodn.)

RN 105754-54-9 HCA

CN Urea, N-[3-[2,4-bis(1,1-dimethylpropyl)phenoxy]propyl]-N'-[4-(2-formylhydrazino)phenyl]- (9CI) (CA INDEX NAME)



IC ICM G03C001-89

ICS G03C001-047; G03C001-825; G03C001-34

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST room light photog material **printing plate**;  
pinhole free photog material; contrast high photog material

IT Surfactants

(photog. materials contg., room-light, for high-contrast and pinhole-free images for **printing plate** prodn.)

IT **Printing plates**

(room-light photog. films giving high-contrast and pinhole-free images for prodn. of)

IT Photographic films

(room-light, giving high-contrast pinhole-free images for **printing plate** prodn.)

IT 79-10-7D, 2-Propenoic acid, sulfonyl cycloalkyl ester, sodium salt, copolymer with Et acrylate and methacrylic acid and styrene

79-41-4D, copolymer with Et acrylate and sodiosulfonylalkyl acrylate and styrene 100-42-5D, copolymer with Et acrylate and methacrylic acid and sodiosulfonylalkyl acrylate 140-88-5D, copolymer with methacrylic acid and sodiosulfonylalkyl acrylate and styrene

30843-69-7 35722-92-0 38577-24-1 75069-25-9 75069-35-1

75646-23-0 75646-24-1 82459-02-7 86551-61-3 99163-15-2

103632-13-9 103632-14-0 104497-77-0 104497-79-2

105754-54-9 111286-86-3 115921-76-1 116736-01-7

120531-77-3 122289-99-0 124597-54-2 128762-57-2 128956-43-4

128956-44-5 128956-45-6 128956-46-7 128956-47-8 128956-53-6

129129-58-4 129719-65-9 130139-23-0 130139-25-2 130341-36-5

130341-37-6 130341-38-7 130341-39-8 130341-40-1 130341-41-2  
 130341-42-3 130392-78-8 130707-47-0 130707-48-1 130707-49-2  
 130707-50-5 130707-51-6 130707-52-7 130707-53-8 130707-54-9

(photog. materials contg., room-light, giving high-contrast and pinhole-free images for **printing plate** prodn.)

IT 84959-24-0 85679-71-6 130405-18-4 130707-55-0 130707-56-1  
 130707-57-2 130707-58-3 130707-59-4

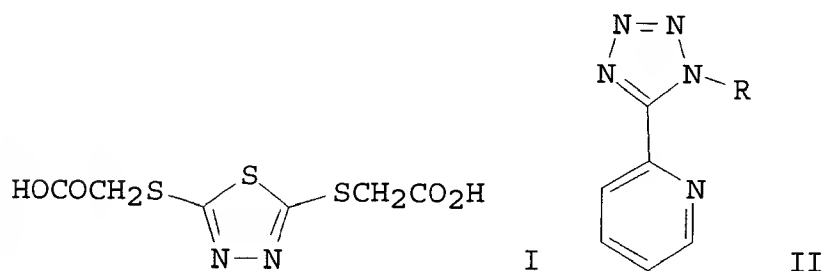
(surfactant, room-light photog. material contg., for high-contrast and pinhole-free images for **printing plate** prodn.)

L79 ANSWER 5 OF 8 HCA COPYRIGHT 2003 ACS

113:162458 Photographic materials containing pyridyltetrazoles and carboxymethylthiothiadiazoles for **printing plates**

. Arai, Takeo; Saito, Mieko; Katayose, Teruo; Nagashima, Toshiharu (Konica Co., Japan). Jpn. Kokai Tokkyo Koho JP 02103532 A2 19900416 Heisei, 15 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1988-255921 19881013.

GI



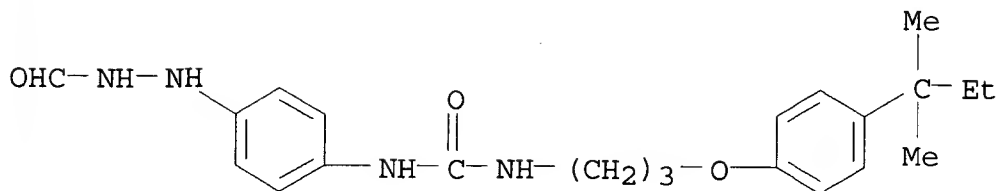
AB The title materials comprising .gtoreq.1 Ag halide emulsion layer and providing an image contrast .gtoreq.6 (at a d. region from 0.3-3.0) contain the thiadiazole deriv. I and the tetrazoles II [R = H, alkali metal, thio ether, sulfo, carboxy, (substituted) alkyl, aryl] in .gtoreq.1 hydrophilic colloid layer on the emulsion layer side. Tetrazolium compds. or hydrazine compds. may be added to .gtoreq.1 of the hydrophilic layers. The materials are useful for prepg. **printing plates** under roomlight conditions.

IT 129855-64-7

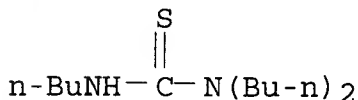
(photog. materials contg. carboxymethylthiothiadiazole or pyridyltetrazoles and, for fogging prevention)

RN 129855-64-7 HCA

CN Urea, N-[3-[4-(1,1-dimethylpropyl)phenoxy]propyl]-N'-[4-(2-formylhydrazino)phenyl]- (9CI) (CA INDEX NAME)



- IC ICM G03C001-06  
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 ST antifoggant photog roomlight **printing plate**;  
 emulsion photog antifoggant; pyridyltetrazole antifoggant photog emulsion; thiadiazole antifoggant photog emulsion;  
 carboxymethylthiothiadiazole antifoggant photog emulsion  
 IT **Printing plates**  
 (roomlight, photog. materials contg. antifogging agents for)  
 IT 30843-69-7 33893-89-9  
 (photog. fog inhibitor, in roomlight **printing plate**)  
 IT 104497-79-2 **129855-64-7**  
 (photog. materials contg. carboxymethylthiothiadiazole or pyridyltetrazoles and, for fogging prevention)  
 L79 ANSWER 6 OF 8 HCA COPYRIGHT 2003 ACS  
 107:246740 Photosensitive elastomer composites for flexographic **printing plates**. Okusa, Tadashi (Asahi Chemical Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 62138845 A2 19870622 Showa, 17 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1985-277903 19851212.  
 AB A photosensitive elastomer compn. contains .gtoreq.1 thermoplastic elastomer, a compd. with ethylenic unsatn., a photopolymn. initiator, a phosphite ester, and, optionally, a thiourea deriv. The elastomer compn. is useful as a thermally stable and photosensitive compn. for flexog. **printing plates**  
 IT **2422-88-0**  
 (photosensitive elastomers contg., for flexog. **printing plates**)  
 RN 2422-88-0 HCA  
 CN Thiourea, tributyl- (9CI) (CA INDEX NAME)



- IC ICM G03C001-68  
 ICS G03C001-00; G03C001-68  
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)



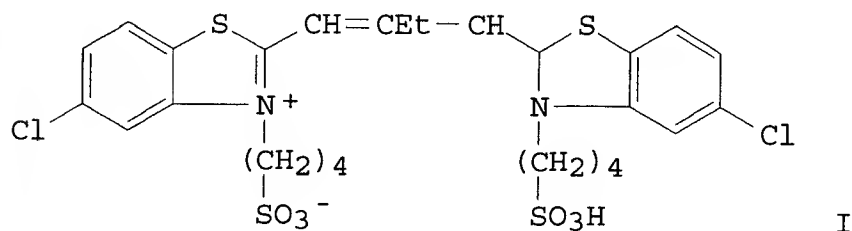
- ST photosensitive elastomer flexog **printing plate**  
IT Photoimaging compositions and processes  
(contg. elastomers, for flexog. **printing plates**)  
IT Rubber, butadiene-styrene, uses and miscellaneous  
(photosensitive compns. contg., for flexog. **printing plates**)  
IT Rubber, butadiene-styrene, uses and miscellaneous  
(block, photosensitive elastomers contg., flexog. **printing plates** from)  
IT **Printing plates**  
(flexog., photosensitive elastomers for fabrication of)  
IT Rubber, synthetic  
(isoprene-styrene, block, photosensitive elastomers contg., flexog. **printing plates** from)  
IT 22499-12-3, Benzoin isobutyl ether 99734-22-2  
(photopolymn. initiators, photosensitive elastomers for flexog. **printing plate** contg.)  
IT 109-17-1 2997-85-5, Dioctyl fumarate 6606-59-3, 1,6-Hexanediol dimethacrylate  
(photosensitive elastomers contg., flexog. **printing plates** from)  
IT 102-08-9 109-46-6 **2422-88-0** 2422-89-1 9003-17-2, Polybutadiene 17616-03-4, N-Laurylmaimide  
(photosensitive elastomers contg., for flexog. **printing plates**)  
IT 101-02-0 3287-06-7 3315-29-5 15647-08-2 60628-17-3 64696-75-9 65146-74-9  
(photosensitive elastomers for flexog. **printing plates** contg., for improved photosensitivity and thermal stability)  
IT 106107-54-4  
(rubber, block, photosensitive elastomers contg., flexog. **printing plates** from)  
IT 9003-55-8  
(rubber, photosensitive compns. contg., for flexog. **printing plates**)

L79 ANSWER 7 OF 8 HCA COPYRIGHT 2003 ACS

103:169927 Method for **printing plate** fabrication.

(Mitsubishi Paper Mills, Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 60100148 A2 19850604 Showa, 7 pp. (Japanese). CODEN: JKXXAF.  
APPLICATION: JP 1983-208110 19831105.

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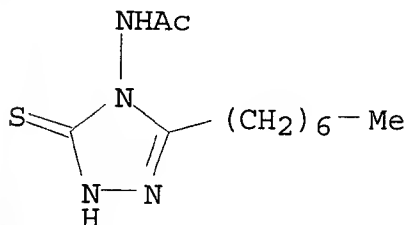
AB Supports are coated successively at least with (1) an undercoat layer contg. a powd. substance with an av. grain size exceeding the thickness of the layer, (2) a Ag halide emulsion layer contg. a powd. substance with an av. grain size smaller than twice the thickness of the layer, and (3) a phys. development nuclei layer to obtain a planog. plate, then the planog. plate is scanned with a high-irradiance short exposure and then developed to give a **printing plate**. This method enables fabrication of planog. **printing plates** without loss of transferred Ag and background staining. Thus, a polyester film support, carrying a SiO<sub>2</sub>-contg. matting layer on the backside, was coated with (1) an antihalation undercoat layer contg. gelatin and SiO<sub>2</sub> with an av. grain size 7 .mu.m, (2) a Ag halide emulsion layer contg. AgCl, gelatin, RhCl<sub>3</sub>, Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, H<sub>2</sub>AuCl<sub>4</sub>, and I, and (3) a phys. development nuclei layer contg. an acrylamide-imidazole copolymer and hydroquinone to obtain a planog. plate. Then the planog. plate was exposed for 10-5 s to a scanning-type He-Ne laser app. and was developed to give a **printing plate**, which showed excellent characteristics.

IT 32444-85-2

(hydrophilization soln. contg., for planog. **printing plate** prepd. using photog. film)

RN 32444-85-2 HCA

CN Acetamide, N-(3-heptyl-1,5-dihydro-5-thioxo-4H-1,2,4-triazol-4-yl)- (9CI) (CA INDEX NAME)



IC ICM G03F007-06

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST **printing plate** planog photog; emulsion silver halide planog plate; silica matting layer planog plate; phys development layer planog plate

- IT **Printing plates**  
 (planog., photog. film assembly for prepn. of)
- IT 67-63-0, uses and miscellaneous **32444-85-2**  
 (hydrophilization soln. contg., for planog. **printing plate** prepd. using photog. film)
- IT 20904-74-9  
 (photog. emulsion contg., for planog. **printing plate** prepn.)
- IT 7631-86-9, uses and miscellaneous 98701-58-7  
 (photog. film assembly with layer contg., for planog. **printing plate** prepn.)

L79 ANSWER 8 OF 8 HCA COPYRIGHT 2003 ACS

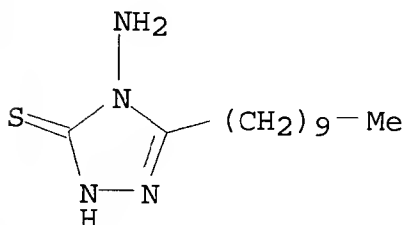
59:1147 Original Reference No. 59:161b,162a-b **Printing plates** by a photographic process. Laessig, Wolfgang; Guenther, Eberhard (Agfa A.-G.). DE 1146367 19630328, 5 pp.; Addn. to Ger. 1,058,844 (Unavailable). PRIORITY: CH 19580423.

AB A Ag image is placed on a coating of hydrophilic, water resistant material, such as hardened gelatin or partially hydrolyzed acetyl cellulose coated on metal foils, polymeric films, or water resistant paper. The image is bleached in the usual manner, washed, and treated with an alk. aq. alc. soln. of a heterocyclic compd., such as 2-phenyl-1,3,4-triazole, 2-decylthio-1,3,4-thiadiazole-5-thiol, 5-heptadecyl-7-hydroxy-2,3,4-triazaindolizine, (PhNH)<sub>2</sub>CS, Na diethyldithiocarbamate, etc. The Ag salts of these compds., formed imagewise, are ink receptive, and enable the treated products to be used as **printing plates** on the rotary press.

IT **97029-26-0**, 4H-1,2,4-Triazole-3-thiol, 4-amino-5-decyl-  
**100411-49-2**, s-Triazolo[4,3-a]pyrimidin-5-ol, 7-heptadecyl-  
 (silver photographic image treatment with, for **printing plates**)

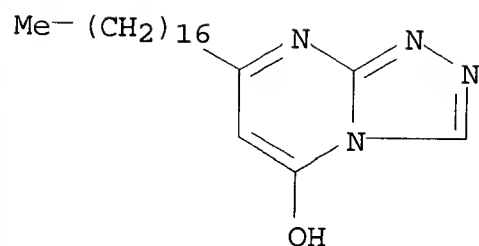
RN 97029-26-0 HCA

CN 4H-1,2,4-Triazole-3-thiol, 4-amino-5-decyl- (7CI) (CA INDEX NAME)



RN 100411-49-2 HCA

CN 1,2,4-Triazolo[4,3-a]pyrimidin-5-ol, 7-heptadecyl- (9CI) (CA INDEX NAME)



- NCL 57D  
CC 11 (Radiation Chemistry and Photochemistry)  
IT Photography  
    (images, from Ag org. compds., for **printing plates**)  
IT **Printing**  
    (**plates**, from photographic images treated to form Ag org. compds.)  
IT Semicarbazide, 4-decyl-1-[mercapto(methylthio)methylene] -  
    (Ag photographic image treatment with, for **printing plates**)  
IT 97029-26-0, 4H-1,2,4-Triazole-3-thiol, 4-amino-5-decyl-  
100411-49-2, s-Triazolo[4,3-a]pyrimidin-5-ol, 7-heptadecyl-  
    (silver photographic image treatment with, for **printing plates**)